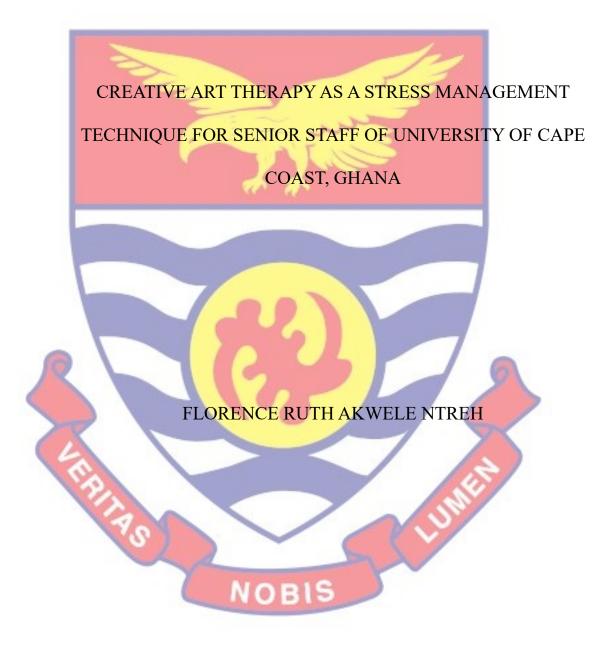
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CREATIVE ART THERAPY AS A STRESS MANAGEMENT

TECHNIQUE FOR SENIOR STAFF OF UNIVERSITY OF CAPE

COAST, GHANA

F<mark>LORENCE RUTH AKW</mark>ELE NTREH

BY

Thesis submitted to the Department of Guidance and Counselling of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast in partial fulfillment of the requirements for the award of Doctor of Philosophy degree in Guidance and Counselling

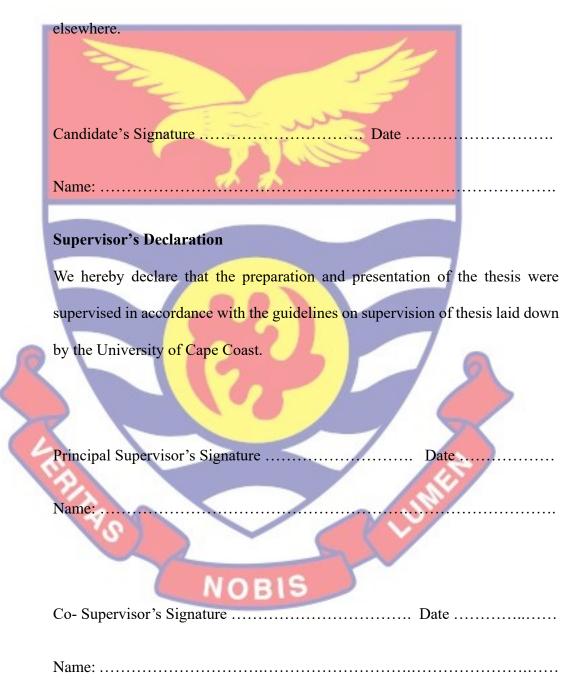
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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or



ABSTRACT

This research explored how creative art therapy could be used as an effective stress management technique. To help attain utmost results from the study, the researcher employed the quasi experimental design of investigation to aid in implementing the treatment - creative art therapy. The study comprised both control and experimental participants. The research participants consisted of 20 senior staff in the University of Cape Coast (UCC), Ghana who were selected through a multistage sampling procedure. The respondents' levels of stress were obtained with the aid of a Perceived Stress Scale. The experimental group was taken through a creative art therapy treatment while the control group received no treatment. The study identified that the overall stress level of the senior staff of UCC operate at a high level of stress. Stress of senior staff was generally as a result of constellation of factors related to their finances, family and their personal lives. The application of creative art over eight sessions on the experimental group provided participants with some amount of stress relief as they engaged in the creation of different craft works. It is worth noting that with much motivation and freedom of expression, the experimental participants were able to explore the creativity within them which facilitated their accomplishments of tasks and relieved them from stress. It is recommended that counsellors should organise programmes aimed at creating awareness of stress and strategies by which staff can cope with stress. Counsellors are also urged to use creative art therapy for stress reduction among clients. Management of universities should collaborate with counselling units to establish therapeutic sections within the institution which would offer art therapy settings for stress relief services to workers at their own convenience.

KEYWORDS

Artistic activities/ creations

Creative art therapy

Stress management

Senior staff



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DEDICATION

To my family: Rev. Prof. Benjamin Abotchie Ntreh, Mrs. Alice Kordei Ntreh and Dr. Abigail Tawiah Ntreh.



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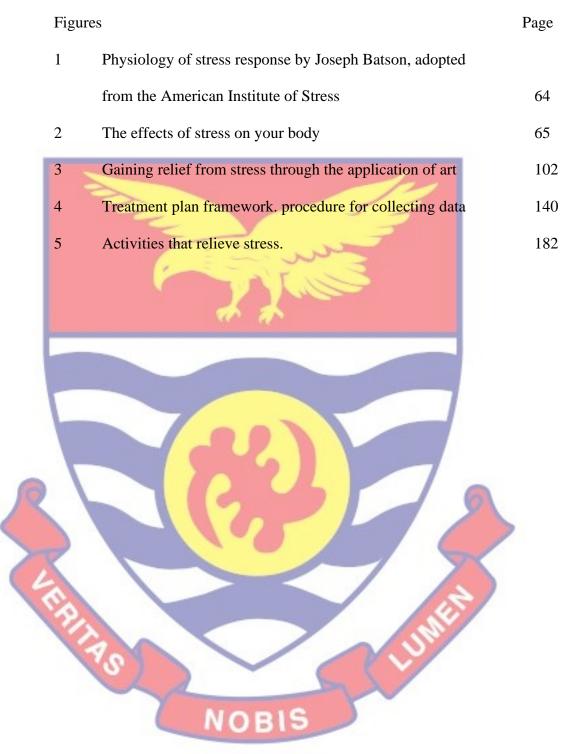
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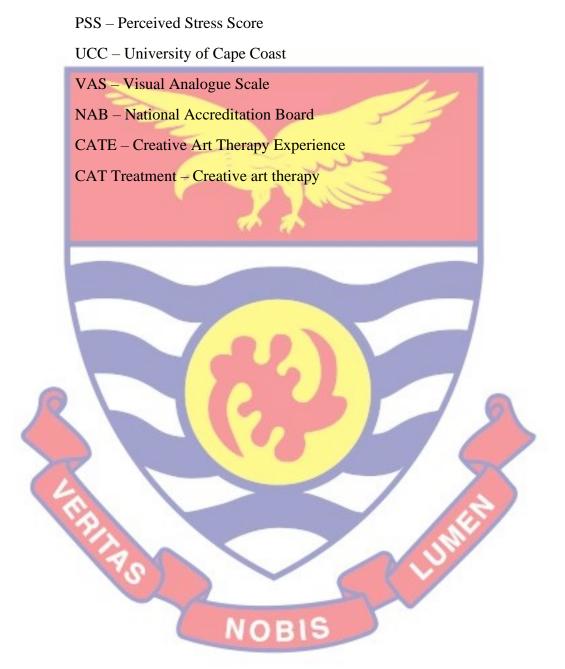
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LIST OF ACRONYMS



CHAPTER ONE

INTRODUCTION

The concept stress is a phenomenon that has been an issue of concern worldwide considering its impact on the individual's health, social cohesion, work, and productivity. Adjei (2009) states that stress is as old as mankind and is a complex issue pertaining to life. Stress, according to Coleman (2006), is a "psychological and physical strain or tension generated by physical, emotional, social, economic, or occupational circumstances, events or experiences that are difficult to manage or endure" (p.731). According to experts, the daily activities of life make it impossible for man to ever live without some amount of stress (Arnold, Silvester, Patterson, Robertson, Cooper, & Burns, 2005; Melgosa, 2006). This explains the reason why humanity possesses some levels of stress at any given time of man's existence.

Background to the Study

All around the world, people face events that tend to place on them some amount of stress as they go about their duties. These stressors might be a silent element within their environment that might not appear to be harmful, yet might be draining an individual of some physical, psychological and or emotional instability. As silent as it might seem, these stressors go a long way to weaken one's ability to fully and speedily achieve a given task in a set time.

There are different types of stressors and individuals tend to feel the impact of stress differently. This universal phenomenon can be caused by a wide range of events, some noticed and others unnoticed. Whatever the trigger of stress might be at any given point, its impact cannot be disregarded especially in the field of work (Willis, 2007). It has been discovered that when stress is too

little or too much, it influences work performance. Thus, workers who face stress of different levels tend to have either an increase or a decline in their productivity at work. Jones and Bright (2001) state emphatically that an individual's job performance improves with increased levels of stress, up to certain limits. The writers make it clear that after a point, stress makes the individual become dysfunctional and reduced performance is also experienced.

The impact of stress can be felt in many ways depending on its cause as well as how the individual handles it. Psychological (mental), emotional (moods), physical (bodily), environmental (social), and occupational (work) are some modes in which stress is said to affect individuals (Towner, 1998). All the above listed forms of stress tend to affect the individual's overall well-being and when not taken care of, subsequently influence events and circumstances around them as individuals (Akosa, 2018). This is to say, an individual's private life as well as their social connection is broken down with the experience of this nature. Occupational stress on the other hand, does not just break down one's private life (physical and emotional) and social connections but goes a long way to affect work involvement and or productivity (Melgosa, 2006).

Stress has always had and would always have an impact on work output. Stress is described as "any event that strains or exceeds an individual's ability to cope" (Lahey, 2012, p.425). Work stress or occupational stress is used to explain the increased levels of strain resulting from job related activities experienced in the workplace. As explained earlier by Willis (2007), the presence of stress in any field of work is very necessary for the energies that workers tend to put into accomplishing their daily responsibilities. This form of stress is said to be good stress – usually termed eustress. Eustress promotes the

energies that help increase performance (Stangor & Walinga, 2014), which also tend to give the individual a sense of being at the helm of affairs (Scott, 2010). It is worth reiterating that when stress is not handled with the uttermost care, it can cause an imbalance on the individual and the world around them. Despite this evidence, experts create an awareness that feeling stressed out does not mean that there is something wrong with the individual (Arnold, et al. 2005; Hotchkiss, 2007). It is part of life, and humanity must therefore find ways of coping with it, else it would result in ailments like hypertension, stroke, menstrual difficulties, depression, hyperthyroidism, reduction in sexual activity, skin disorders, peptic ulcers, indigestion among others (Bernstein, Clarke-Stewart, Roy, Penner & 2003; Larkin, 2005; Scott, 2010).

Occupational stress or work stress is defined as 'the pattern of physiological, cognitive, emotional, and behavioural reaction to some extremely taxing aspects of content, work organization and work environment' (Roberts, 2010). It is said to be one of the leading causes of reduction in work productivity (Segal, Smith, Robinson, & Segal, 2018). These authors explain that it is almost impossible to avoid occupational stress when one's career is characterised by tight schedules to meet deadlines, long working hours, and an ever-fluctuating demand to adapt to an increased demand for amenities. With the ever-increasing demands for goods and services of different types, the Australian Department of Health and Human Services (2012), explains that work-related stress is the most commonly compensated illness in Australia.

According to U.S. Chamber of Commers Foundation (2012), 'higher education is appearing essential for economic security', making education a worldwide indispensable necessity. The annual amalgamated research report conducted by the National Accreditation Board Ghana – now Ghana Tertiary Education Commission, for the years 2012/2013, 2014/2015 and 2015/2016 prove that student's intake keeps on increasing year by year (National Accreditation Board, 2015; 2016; 2018). For instance, a total of 389,897 students gained admission into tertiary institutions in the 2012/2013 academic year, 396,264 for 2014/2015 and 432,257 were admitted in 2015/2016. This picture indicates that the pursuit for more knowledge to equip individuals meet the ever-evolving standards of life, is a reality that needs the attention of policy makers in educational institution. In this light, the National Accreditation Board (NAB) in all of the above reports confirmed the need for the outcome of these composite statistical report to inform tertiary education policy decisions at national and institutional levels, in order to satisfy all necessary institutional reequipments. The increased intake of students, according to NAB, has greatly impacted the student-staff ratio. Consequently, institutional facilities as well as teaching and non-teaching staff are affected by the impact of the increase enrolment of student in Ghanaian tertiary institutions, as this presents the teaching and non-teaching staff with some increased amount of occupational stress aside other environmental stressors.

The student-staff ratio problem mentioned above is not only seen as a challenge in the lecturer-student relations as spelt out by NAB but appears to be a problem also between student and other service providers in Ghanaian tertiary institutions. Other workers in Ghanaian tertiary institutions in sectors like administrative, technical, labour, sanitation just to mention a few also have a fair share of overload from this increase of the student population. For instance, the senior staff in Ghanaian public universities in their line of duty happen to

undergo an already hectic schedule in their line of work. This situation is mostly due to their responsibility of assuring accurate, and creditable academic administrative, technical, and accountable tasks among other duties.

Senior staff workers of the University according to the University of Cape Coast (2016), provide information on administrative workers 'not below the rank of an Administrative Assistant or its equivalent and not above Chief Administrative Assistant or its equivalent' (p.3). Their duties extend within a wide range of responsibilities in different sections within universities. At certain times of the academic calendar, these duties intensify to meet the activities and programmes of their various faculties/schools and departments. This, among other things, exerts extra stress on these individuals classified as senior staff. Thus, during programmes like orientation and congregation as well as seasons like admission of fresh students and examinations, among others, the senior staff tend to sacrifice a lot of time from their home and other social activities to be in the office in order to finish up with what their employer expects of them. Adjei (2009), states that UCC "in its quest to strive for academic excellence has made performance expectations higher which the staff must contend with", (p. iii). The writer reports of an instance where workers of the University of Cape Coast (UCC) forfeited their annual leave but opted for casual leave instead. The writer linked this situation to the global increase in academic institutions' remarkable organizational changes set to meet current standards.

Due to the nature of the responsibilities the senior staff of UCC go through, the research report of Adjei (2009) makes it clear that the senior staff of UCC face both psychological and physiological stress symptoms. Melgosa (2006) makes it clear that occupational stress, to a large extent, affects the

individual's cognitive, physical, and emotional wellbeing as well as creates a dent in one's relation with those around them. For this reason, writers like Michie (2002) and Willis (2007), suggest that workers should ensure that they are both mentally and physically fit to enable them carry out their duties in good health. This suggests that when workers, in this case, the senior staff get stressed, some institutional duties entrusted to them might suffer maladministration (work surplus or compilation of task) due to ill health.

Other studies conducted on UCC workers – senior staff and senior members – include research works relating to occupational stress and coping (Agbemafle, 2010; Siakwa, 2013; Ofosuhene, 2018), and occupational health practices (Obese, 2010), all point to the fact that the impact of stress faced by these two groups of workers tend to have a negative impact on both the individuals' health and work productivity. The study conducted by Ofosuhene for instance, indicates that stress influenced cognitive capacity, wellbeing, health and employee capacities – an individual' perception of their knowledge, skills and experiences, abilities to achieve results, and room for potential growth.

Impacts of stress such as those that affect the individual's mental, emotional, physical, and social wellbeing have been found in the above studies conducted as factors affecting workers of the University of Cape Coast. These above studies conducted by UCC students and workers alike have proven different levels of stress among the senior staff as well as a wide range of negative effects of stress on workers input in their given tasks (Adjei, 2009; Ofosuhene, 2018). This realisation calls for attention and pragmatic action to be taken to help improve the health of workers as well as increase total productivity

within the university. After all, a healthy and productive human resource is an asset to the institution as well as the nation at large.

Statement of the Problem

Winfield (2000) addresses the fact that occupational stress is high in the field of teaching and non-teaching staff of universities and makes it clear that this is a worldwide phenomenon. A search through the UCC institutional repository provides evidence that many studies have been conducted on the stress levels of university staff, most of which have also proven that stress is a reality that must be given the necessary attention and devotion. A preliminary purposive data scan – June 2018 to February 2019 – requested by the researcher from health files of the senior staff workers from the Directorate of Health Services UCC indicated that stress related sicknesses such as hypertension, diabetes, insomnia, gastroenteritis/ ulcers, asthmatic manifestations, and cerebrovascular accident (CVA) had been repeatedly reported or diagnosed over the six months preceding the said scan (Directorate of Health, 2019).

Occupational stress of senior staff could be attributed to other social, psychological, physical yet silent factors. A survey conducted by Cope (2003) indicates that though workers face some amount of stressed at work, there could be external factors that might have induced the stress they experience. The writer points out that issues such as life crises, family issues, financial difficulties, conflicts of personal beliefs among other factors tend to affect workers' levels of stress. Since stress could be traced to the diverse facets of an individual's life – cognitive, social, physical, emotional, and economic, – it is an unspoken fact that a combination of any of these could result in stress that workers experience.

The senior staff of UCC, like all other academic workers worldwide, are facing occupational stress as a result of a wide range of life activities (Winfield, 2000). Life activities that cause stress to workers include anti-social or unethical interpersonal relationships with colleagues at work, turnover rate in the office, finances, and family relationships (Michie, 2002; Cope, 2003; Melgosa, 2006; Adjei, 2009). According to Rulli (2014); Mental Health Foundation (2018); Ofosuhene (2018), depression, environmental, medical, psychological, or psychiatric problems, domestic trauma such as marriage, infertility, divorce, separation from a spouse, and bereavement can also cause stress. Another study conducted by Adjei (2009) reveals that, senior staff duties appear to be more of a coordination of tasks. This in turn stresses them in their day to day activities which call for some measures to curtail the effects of stress to maintain a healthy work environment for them.

In coping with stress, most people tend to use what may be considered as conventional methods which work perfectly in reducing stress (Daft & Marcic, 2004; Hotchkiss, 2007; American Psychological Association, 2012, Akosa, 2018). These conventional methods could include taking in deep breaths, drinking alcohol, reading, exercising, or walking to relax the muscles and reduce stress hormones, shopping, smoking, eating well or taking supplements, changing policy, rescheduling of tasks, listening to music, attending religious services, and spending time with family. Other methods people apply which also contribute a great deal in helping to reduce stress levels include drawing a picture, dancing, listening to music, creating artworks such as sculpture, clay work, woodwork, beads making among other procedures (Kaplan, 2000; Edwards, 2004; Rubin, 2005; American Art Therapy

Association, 2017). These non-traditional stress-relief methods (Art Therapy), have great impacts in helping to psych the human brain transform into a relaxed state towards the adaptation of the social world around the individual (Malchiodi (2003); Levine & Levine (2011); and Kapitan (2012).

In Ghana, a lot of studies have been done on the stress phenomenon and how to diminish its impact on human health using the above listed traditional methods. Yet, literature reviewed indicated that nothing has been documented on the application of creative art therapy as an intervention to reduce the stress of workers. Apart from the initial trial by Ntreh (2010) at UCC, not much research has been conducted in Ghana in relation to art therapy and stress reduction. It is therefore expedient once again to put to test the effectiveness of the application of creative art therapy in reducing stress. Thus, the researcher's initial attempt to apply art therapy on these groups of workers proved that stress was reduced for a short while after which it shot back to its initial high rate. Yet, a quick review of evidence from previously reviewed literature re-echoed the fact that this therapy is an indisputable therapeutic means of reducing stress in humans with extensive sessions. It was therefore recommended after the intervention that there was a need for a more intense application of the art therapy on these groups of workers for the intervention to have a greater impact on reducing their stress levels as proven by other studies. It is upon this information that the researcher acknowledged the need to first, assess the current levels of stress affecting work performance among University of Cape Coast senior staff, and hereby took highly stressed members through an intensive creative art therapy intervention (mixed application of various art forms) to help reduce their stress.

Having noted all the projected positive effects of art therapy on stress in the western world, and the fact that this therapeutic practice is not found in the Ghanaian setting, the researcher embarked on this study in order to fill the gap found in the literature on the effectiveness of art therapy as a therapeutic method in reducing stress in Ghana. Thus, with this study, the researcher chose from a wide range of art forms that were used during this intervention to assess the effectiveness of art therapy on stressed senior staff of UCC. The researcher believes that the flexibility for participants to choose whatever technique they deemed favourable contribute to the success of this study on the effectiveness of art therapy in reducing stress. The results would therefore bridge the gap on local literature on the effectiveness of using art therapy in reducing stress levels of workers.

Purpose of the Study

The primary purpose of this study was to investigate creative art therapy as an effective therapeutic technique in managing stress among the senior staff of UCC. To achieve this objective, the study sought to:

- 1. assess the stress levels of the senior staff of the University of Cape Coast.
- find out the symptoms of stress experienced by the senior staff of the University of Cape Coast.
- identify the causes of stress experienced by the senior staff of the University of Cape Coast
- 4. explore activities used by the senior staff of UCC as stress relief measures.
- 5. assess the stress levels of the senior staff after the intervention to

ascertain if there will be a decrease in their stress levels.

Research Questions

To achieve the objective of this study, the purpose was clarified through the following questions:

- 1. At what levels of stress are the senior staff of UCC working?
- 2. What are the symptoms of stress experienced by the senior staff of the University of Cape Coast?
 - 3. What are the causes of stress experienced by the senior staff of the University of Cape Coast?
- 4. To what extent has creative art therapy reduced stress among the experimental group?
- 5. What activities do the senior staff of UCC use as stress relief measures?

Research Hypotheses

The hypotheses for the study were as follows:

- H₀1: There is no significant difference in the stress levels of senior staff of UCC and the normal human stress level.
 - H_A1: There is a significant difference in the stress levels of senior staff of UCC and the normal human stress level.
 - H₀2: There is no significant difference in the overall mean post-test stress scores of respondents of the control and the experimental group.
 - $H_A 2$: There is a significant difference in the overall mean post-test stress scores of respondents of the control and the experimental group.
 - H_03 : There is no significant difference in the mean pre-test and post-test stress scores of respondents of the control group.

- H_A3: There is a significant difference in the mean pre-test and post-test stress scores of respondents of the control group.
- H_04 : There is no significant difference in the mean pre-test and post-test stress scores of respondents of the experimental group.
- H_A4: There is a significant difference in the mean pre-test and post-test stress

scores of respondents of the experimental group.

Significance of the study

The outcome of the effect of the experiment will be used to increase the knowledge of the extent to which creative art therapy can help relieve individuals from stress. Thus, respondents taken through the art therapy process will learn basic skills in applying creative arts and craft to control stress. This will enable them to put to practice this therapeutic method in their day to day lives or whenever the need arises.

Findings of the study will introduce a more practical means by which psychological professionals – counsellors, psychologist etc – and other parapsychologist, will promote the use of creative art therapy in dealing with health, cognitive, emotional, behavioural, and other social challenges as documented in other parts of the world.

Results from the research will serve as an enlightenment to Ghanaian artists to pursue the skills needed in empowering them to venture in the field of art therapy. With the basic knowledge and skill in creative arts, artists will simply need to pursue knowledge in the psychology of applying their skills to aid people control any health, cognitive, emotional, behavioural, and other social challenge they might be facing.

Assumptions of the Study

The focus of this research is to investigate the extent to which creative art therapy will serve as an effective technique in managing stress among the senior staff of UCC. The study is founded on the underlisted assumption.

- The senior staff of the University of Cape Coast face stress due to the numerous roles they play in their various departments.
- 2. Creative art therapy can be one of the best ways to help the senior staff control their work stress levels.
- 3. The impacts of the intervention (creative art therapy) on the senior staff will serve as an easy and dynamic way of releasing stress of the senior staff.

Delimitations

This research sought to investigate the extent to which creative art therapy can serve as an effective technique in managing stress. The group of workers used for the intervention were the senior staff of the University of Cape Coast. This study excluded the junior staff and senior members in the university but focused on highly stressed senior staff in UCC.

The study was also restricted to the Cape Coast Metropolitan Area in the Central Region of Ghana, and therefore, could not include other public universities. The design used for the intervention was a quasi-experimental design, which focused on stress relief through the application of creative art therapy.

Limitations

In conducting this study, some few setbacks the researcher encountered included the inconsistencies of participants to attend therapy at their set

schedule as planned. Though respondents were mostly given room to explore as they create their personal projects, during some sessions, these inconsistencies made it impossible to fully attend to individuals during planned therapy sessions as planned. Also, since the researcher is not a certified art therapist but a trained artist and counsellor, it is suggestive that the study could be related to that of an artist or counsellor using art as a therapeutic means for stress-relieve.

Definition of Terms

Creative Art: This term is used to explain the flexible nature by which participants are expected to produce art forms. Thus, instead of the conventional mode of producing artworks with devoted attention and accuracy, creation of artworks was focused on willingness to explore one's ability to create art forms with pleasure and not the beauty or precision of the artworks.

Creative Art Therapy: In the context of the study, creative art therapy is specifically used to explain the creative nature in which participants will produce artworks which will in turn serve as a therapeutic means of reducing stress. The term is mostly used interchangeably with the term *art therapy*.

Senior Staff: This refers to senior technical staff and senior non-technical staff of the university not below the rank of an Administrative Assistant or its equivalent and not above Chief Administrative Assistant or its equivalent.

Technical Staff: Workers who mostly deal in vocational duties and practical skills.

Non-Technical Staff: Workers whose duties are less of a vocational task.

Organisation of the Study

The study is organized in five different chapters. As a form of introduction, the background to the study, statement of the problem, purpose of the study, research hypothesis, scope of the study, and research limitations, were discussed to throw more light on the substance of Chapter One. In Chapter Two, the researcher reviewed and discussed relevant literature that aided the research work. The Chapter delved into literature related to stress and art therapy under key areas such as theoretical, conceptual, and empirical perspectives. The third chapter dealt with the methodology that was used to conduct the study. This chapter included an overview on the research design, population, sample and sampling procedure, instrumentation, data collection procedure, and the data analysis procedures. Chapter Four focussed basically on the results obtained from the methodology used, and further discussed the results. To end it, Chapter Five provides a summary to the study as well as a conclusion and recommendations. This chapter also made provision for the implications of the

findings of the study in the counselling field.

CHAPTER TWO LITERATURE REVIEW

Introduction

To bring more meaning to the study, the researcher reviewed literature to certify theoretic and empirical bases of the study by exploring the themes relating to stress and art therapy. The theoretical reviews threw more light on facts about stress and art therapy, as well as covered some essential theories that underpin creative art therapy and stress management under study. The empirical review covered studies that have been done on the variables and establish the connection between stress and art therapy. A conceptual framework was developed to help establish the link between information relating to creative art therapy and stress management.

Theoretical Framework

In this section, literature was focussed on theories relating to stress and art therapy. Theories on stress that were considered for the study included the Transactional Model of Stress and Allostasis and Allostatic Load Theory, whiles the Psychodynamic, Jungian Analytic and the Humanistic Theories of Art Therapy were reviewed.

Stress Theories

Since stress happens to be a phenomenon well-known to mankind due to its effect on life, several theories have been propounded to explain the realities pertaining to stress. According to Dewe, O'Driscoll and Cooper, (2012), there are as many theories of stress as there are definitions of stress. Larkin (2005) noted that most stress theories have been developed with the focus on stress either as stimulus or as a response. He also hints that most contemporary theories have given room for an incorporation of "the importance of both stressors and stress response in explaining" the concept stress (p. 78). Some theories written on this phenomenon include the transactional (interaction) theory/ model of stress, by Lazarus and Folkman -1982; the person - environment fit; the Conservation of Resources (COR) theory, by Stevan Hobfoll (1989); Theory of Adaptation by Roy (1989); Allostasis and Allostatic Load Theory, by McEwen and Stellar (1993); the Job Demands–Control– Support Model of work design by Karasek (1979); and the biopsychosocial Model of Stress, by Bernard and Krupat, (1994). This study explored theories such as Transactional Model of Stress, and Allostasis and Allostatic Load Theories.

Transactional theory (model) of stress and coping

The Transactional Theory of Stress and Coping (TTSC) was proposed by Lazarus and Folkman (1984), it was referred to as the Stress Appraisal Theory. The Transactional Theory of Stress is also called the Cognitive-Relational Model of Stress. This theory of stress evaluates the processes through which individuals cope with stressful events. It is said that the TTSC is said to be a 'process-oriented approach' which offers an insight into the nature of the stress process itself (Dewe, O'Driscoll, & Cooper, 2012).

According to Cordon (1997), every stressful experience is said to be construed as a person-environment transaction. Thus, the theory believes that the individual's cognitive, affective, physiological, psychological, neurological,

and adaptive responses or systems interacts with the environment to conceive the event as stressful or not (Stangor & Walinga, 2014, p. 689). The principle behind these transactions depends on the individuals' evaluation of the impact of the external stressor (Larkin, 2005). The writer explains that "it is not the initial stressor per se that is critical in linking stress to disease", but rather the individual's response to the stressor that determines whether a cyclic stress reaction developed, (p. 79). Dewe, O'Driscoll and Cooper (2012), make it clear that "the authority and power of the transaction lies in the process of appraisal that binds the person and the environment". To throw more light on this subject, they quote Lazarus (1999 & 2000), who makes it clear that "it is this 'relational meaning' that the person constructs from the transaction". This statement, they say, "lies at the heart of the stress process", (p. 26).

The theory makes it clear that people and groups differ in their sensitivity and vulnerability to certain types of events, as well as in their interpretations and reactions. This is to say that an individual's adaptive tendencies to stress at a given moment can change over time as a result of either coping effectively, altered requirements, or improvements in personal abilities to withstand strain (Psychology Research and Reference, 2019). Walinga (2008) quotes Mechanic, who also makes it clear that the effect of a stressor is dependent on "personal and conceptual factors" such as "capacities, skills and abilities, constraints, resources, and norms".

The TTSC makes use of three cognitive appraisal stages to explain the effect of stress on an organism. These stages according to Lazurus are the primary appraisal, secondary appraisal, and reappraisal.

The primary appraisal is characterized by the ability of the cognitive system of the body (Larkin, 2005), to determine whether the stressor poses any threat. According to Psychology Research and Reference (2019) the body makes a decision by analysing the situation to evaluate it as one that would cause harm, loss or possible present a challenge to the individual. Thus, an evaluation about the stressor being controllable, stressful, or irrelevant is scrutinised at this stage. The underlining cognitive process here is for the individual to consider "the significance of the encounter and evaluates it in terms of its personal meaning" (Dewe, O'Driscoll, & Cooper, 2012, p.26).

According to Dewe, O'Driscoll and Cooper (2012), Lazarus, indicated three types of primary appraisals namely, *harm/loss* — an already occurred experience; *threat* — future possibility of an occurrence of harm; and *challenge* — an engagement with the demand by the stressor. Whereas harmful situation and a loss would present a threat to the individual, Psychology Research and Reference (2019) make it clear that a challenge would on the other hand, positively influence the individual to work at expanding "one's knowledge and experience, and to develop extra tools to embrace future challenge would likely boost a positive action or response. According to Larkin (2005) the presence of a harmful experience would immediately call for an evaluation which provides the body with means to cope with the situation. On the other hand, the unset of a threatening situation or challenge provides the individual an avenue to gain greater understanding of the experience. This knowledge tends to help the individual to acquire a reservoir of knowledge, which would help to determine

options available for handling the situation latter on in life (Psychology Research & Reference, 2019).

During the secondary appraisal, the individual is said to assess a measure by which they would cope with the stressor to tackle the threatening situation. At this stage, the individual considers what options are available to fight the stressor in order to cope with its impact. Coping according to Lazarus (1999) is the "constantly changing cognitive and behavioural efforts a person makes to manage specific external or internal demands that are appraised as taxing or exceeding the resources of the person" (Dewe, O'Driscoll, & Cooper, 2012, p. 26). Coping is said to be seen in two forms: problem-focused and emotionfocused.

At the reappraisal stage, Stangor and Walinga (2014), explain that there is an ongoing and continual reappraisal of "both the nature of the stressor and the resources available for responding to the stressor", (p.690). In clarifying the continual reappraisal process, Larkin (2005) also explains that the process involves the unique occurrence of the change that was evident in the primary appraisal because of coping strategies employed during the secondary appraisal. The basis of Lazarus' Transactional Model of Stress according to Lesage, Berjot and Deschamps (2012), inform the development of the Perceived Stress Scale (PSS) questionnaire. The writers explain that the questionnaire 'assesses the cognitively mediated emotional response to an objective event, rather than the objective event itself as a checklist of stressful events would do'. This clearly speaks of the underpinning of the TTSC theory and project the essence of paying attention to the effect stressors have on the cognitive system of individuals. With reference to Selye's explanation that "stress is the nonspecific response of the body to any demand...", it is worth stating that the stages of appraisal in the transactional theory of stress and coping reinforces this primary fact (Willis, 2007, p.8). Thus, the transactional theory of stress helps individuals to identify that the potential of every individual to evaluate stress is expressed differently. Psychology Research and Reference (2019), assert that with knowledge of "appropriate coping responses" or "stress appraisals", the individual is equipped with the most favourable defence mechanism that will combat stress.

Allostasis and Allostatic Load Theories

In contrast to the state of physiological equilibrium of homeostasis essential for survival, McEwen used the term 'allostasis,' referring to the body's ability to adapt to a changing environment in situations that did not challenge survival (Larkin, 2005; Logan & Barksdale, 2008). Allostasis according to Scott (2010), refers to the "combination of automatic adaptive responses that enable the body to maintain stability, or homeostasis, through change", (p.36). According to the writer, the term was introduced by Dr. Peter Sterling of the University of Pennsylvania. Allostasis also refers to the body's ability to adjust to a 'new steady state' in response to the environmental challenge (McEwen & Stellar, 1993). The writer further explains that there is a clear cut difference between homeostasis and allostasis. Larkin (2005) explains that with homeostasis, the body temperature is altered in relation to the introduction of a stressor, whereas for allostasis, the heart rate is that which changes as a response to stress of any form, (p.73). Soreq, Friedman and Kaufer (2010), claims that allostasis is "a generalized effort to utilize every available energy resource

against the perceived stressor", thus the "ability to preserve stability through change", (p.332).

The constant exposure to the intensities – exposure and frequency – of stressors at times becomes too much for the body to bare. This psychological effect or response, if not well catered for, deprives the body of the recovery needed for the appropriate wellbeing of an individual. According to the Mental Health Foundation (2018), such repeated activation and improper recovery of such "physiological imbalances effects result in cumulative wear and tear on the body (or allostatic load) and can cause individuals to feel permanently in a state of 'fight or flight'". McEwen and Wingfield (2003), also talk of the challenging response of the body to stress over a period which inherently causes "the price the body pays for being challenged repeatedly by a variety of environmental stressors" (McEwen & Wingfield (2003) in Larkin, 2005, p. 73). This is what McEwen and Wingfield term allostasis load. According to them, a higher impact of an allostasis load – allostasis overload – is experienced when an individual tends to have a greater frequency of "exposure to stressors, increased intensities of these stressors, or decreased efficiency in coordinating the onset and termination of the physiological response" (Larkin, 2005, p. 73).

Scott (2010) also mentions that the constant occurrence of stress on the human body tends to exert so much burden on the body, as the constant "release of adrenaline and cortisol builds up and creates a problem for the body system", (p.36). This effect on the human system is what is referred to as the *allostatic load*. With reference to the word "load", the writer explains it as "a measure of the mediators and biological by-products of ongoing stress in your body", reflecting the genetic ability an individual possesses in fighting stress. The

'load' is also said to be the toxic by-product of an altered homeostasis due to constant stress.

Larkin (2005 p. 73-75) makes reference to McEwen, who asserts that there are four types of allostatic loads. These four types are noted in the following:

1. For the first type, the individual is said to be "exposed to multiple environmental stressors during a short period of time". It is explained that as individuals come in contact with a stressor, they tend to exhibit some physiological response associated to the stressor after which the body tries to go back to its initial state. At the point of recovery, if the individual happens to encounter another stressor, it is explained that the body once again goes through another physiological response which would once again cause a change in the body's reaction to the stressor. Here, McEwen explains that "the problem is associated with the frequency of the stressors encountered".

. The second type of overload is said to happen when "repeated stressors elicit responses that fail to habituate". Thus, an allostatic overload tends to occur when "the body fails to exhibit the normal habituation response," it would have presented under normal circumstances.

3. The third type of allostatic overload is said to happen when there is a "delayed physiological recovery from a given environmental stressor". McEwen explains here that when the individual experiences a stressful event, "the physiological recovery is delayed, and the arousal is still apparent hours or days later". Thus, "the frequency or magnitude of the physiological response may be entirely normal; however, it is the length of time that the response is sustained that leads to allostatic overload".

4. The fourth type of allostatic overload involves an inadequate physiological response". By this, the writer is referring to cases of stress encounters where "the organism encounters a stressful circumstance or environmental change, but the physiological response is either very weak or entirely absent". With this type, it is explained that the body's fight-flight response fails to take action in response to the stressor.

Scott (2010) asserts that though there are many components of the allostatic load, one must take note of a general principle applicable to all the different types. The principle indicates that the lower the load, the healthier your aging rate. Meaning, with lesser stress, "the better you are able to maintain a high level of mental capacity and physical wellbeing", (p.36).

Rice (2012, p.29) and Scott (2010, p.37), both touch on the various measures by which the amount or level at which the allostatic load could be identified in an individual, as indicated by McEwen and his colleagues. These include: -

- 1. Cardiovascular functioning and heart rate variability: systolic and diastolic blood pressures,
- 2. Indicators of metabolism such as the lipid profiles, one's fasting insulin and glucose, and a gauge of one's abdominal obesity based on ones waist circumference: - high-density lipoproteins (HDL) and total cholesterol, glycosylated haemoglobin (HbA1c) levels of glucose metabolism over time, serum dihydroepiandrosterone (DHEA-S), 17-

Hydroxycorticosteroids or 24-hour urinary cortisol excretion, and overnight urinary noradrenaline and adrenalin excretions.

3. Inflammation: - by determining sympathetic nervous system activity based on the levels of neurotransmitters, such as epinephrine and norepinephrine, measure excess hypothalamic pituitary activity, based

on cortisol levels; and survey the cortisol rhythm over the course of the day.

In all the above, Rice (2012), makes it clear that "Cortisol, noradrenalin, adrenalin, and DHEA are identified as the four primary mediators", (p. 29).

Art Therapy Theories

The practice of art therapy is said to be supported by a wide range of theories. Rosal (2018) draws attention to a long list of theories that underpin this technique, which include Psychoanalytic techniques, Jungian principles, Adlerian theory, phenomenological approaches, humanistic philosophies, gestalt principles, existential tenets, eclectic approaches, behavioural approaches, and cognitive-behavioural therapy. Some other notable philosophical foundations that support this technique include the person centred approach, psycho-social and psycho-educational approaches to art therapy, cognitive-behavioural art therapy, multimodal approach, developmental art therapy, free association in art imagery, and systemic approaches to art therapy (Rubin, 2016).

Theories that were considered for this study were limited to the psychoanalysis, Jungian's analytic and the humanistic theories of art therapy.

The researcher believes that these three theories reflect the grounds for which the research can be pivoted to bring more light to the essence of art therapy.

Psychoanalysis theory

Just as Freud's psychoanalytic work made a great impact in the field of psychology, historic accounts of pioneer art therapist have also proven that the understanding of psychoanalysis has helped in the practice of art therapy. For this reason, this study sought to bring understanding to the basis of the psychoanalytic approach to art therapy. The psychoanalytic approach believes that analysis should be based on an understanding of the dynamics of the patient's internal world (Corey, 2012). In relation to art therapy, this suggests that works produced by clients simply express views they may be having at a given time due to their past or present mood.

History makes it clear that art therapy had "its root in the then-dominant mode of understanding" - psychoanalytic theory (Rubin, 2010). Psychoanalysis is the oldest and most elaborate among modern therapeutic approaches, it can be said to be the bases for all existing theories. Jones (2005) explains the fact that finding the connection between works of art therapy and the means by which it positively affects human behaviour and mental conditions, was as a result of finding out the work of the unconscious. This, according to him makes the psychoanalytic field relevant to art therapy. Psychoanalysis, which is a theory that embraces its principle in trying to understand how and why people function as they do, could be used to perfectly explain the effectiveness of applying art therapy on humans (Rubin, 2010).

According to Engler (2006), Freud essentially initiated the close study of the unconscious and the way it reflects itself in the individual's behaviour.

Malchiodi (2003) also explains that the genesis of the connection between art therapy and the psychoanalytic approach was as a result of Freud's 'discovery that dreams had meaning'. The writer continues to explain that the theory of the unconscious was the main influence behind the "development of psychoanalytic approach to art therapy as well as the development of projective techniques", all of which made use of unconscious material through images.

In throwing more light on the subject, Corey (2012) states that "most psychological functions exist in the unconscious realm". The writer further explains that the aim of the psychoanalytic therapy, "is to make the unconscious motive conscious". Most writers explain that any negative relationship or event that is harboured by individuals later lead these people to refraining from these relations or events (Morris & Maisto, 1999; Edwards, 2004). Edwards (2004) mentions that over a period, these negative perception/action of the world around them becomes distorted beyond recognition since the thought has been pushed into the unconscious. Thus, the unconscious stores up all repressed material (Funder, 2004). For this reason, Freud asserts that the unconscious process is therefore, the root of all forms of psychological problems or neurotic symptoms as well as behaviours (Corey, 2012; Lahey, 2012). Bernstein, Clarke-Stewart, Roy and Penner, (2003) draw attention to the fact that the function of the unconscious is to protect mankind from negativity "by keeping them out of consciousness".

Since repressed perceptions are mostly not accessible to the consciousness as professed by Lahey (2012), art therapists believe that to 'gain access' into such unidentified territories, expressions made in the form if artworks would help release some of these repressed feelings and help the client

relax (Edwards, 2004). This is to say that art therapy tends to facilitate the unconscious to express itself freely during the process, and hereby relieves the client from any negative affecting behaviour (Searle & Streng, 2001). According to Engler (2006) during analysis, "the patient obtains considerable relief just by being able to unburden certain thoughts and feelings to a "sympathetic listener". In the field of art therapy, this "sympathetic listener" could be compared to the art material on which the client would be communicating (transferring) any form of conflict unto. In other cases, it could be said to be the art therapist, who would be helping to bring understanding to the artwork produced by the client.

In psychoanalytic therapy, one other important feature aside the unconscious is the interpretation of the unconscious. According to Feltham, Hanley and Winter (2017), the best means of interpretation is the classical. They state that most modern therapists adopt to the 'here and now' interpretation which draws on the findings of the immediately finished therapy session. The writers state that the classical form of interpretation offers room for client to become aware of their own perception during therapy before they relay any meaning to client's behaviour. It is mostly done over a period of successive sessions and not based on one single therapy session.

Due to the foundations laid by Freud in psychoanalytic therapy, we are made to understand that when dealing with clients with psychological challenges, there is a high tendency for these individuals who come for therapy to be experiencing some amount of hidden feelings due to the actions of the unconscious (Engler, 2006; Corey, 2012). Rubin (2010) asserts that during the production of artworks of different forms, such hidden messages are made

clearer to both the artist and the client. Thus, it brings to light the point raised by Corey (2012) that psychotherapy helps bring "the unconscious motive conscious". Corey then explains that with this in place, "one becomes conscious of motivations" and has what it takes to "exercise choice". According to Arieti as cited by Searle and Streng (2001), in psychotherapy, both the art therapy process (creative process) and the product of art therapy (creative product) happen to possess a therapeutic significance.

Some basic concepts affiliated to the psychoanalytic approach have been identified to be of significant essence to the practice of art therapy. Pioneer art therapists like Naumburg and Kramer whose works were inspired by the psychoanalysis theory from Freud happen to prove that some of these concepts are relevant in art therapy. These concepts include boundaries and frames, free association, symbolism, transference, and sublimation among other defence mechanisms. Searle and Streng (2001), assert that "artistic creations, like transference, reveal the unconscious". This assertion they believe is because therapeutically art could construe any underlying emotional meaning as well as represent any experience in art form. Kramer for instance explained that through these concepts the "synthesis of content and form was achieved by transforming emotional material into fully formed images" (cited in Malchiodi, 2003). Searle and Streng (2001, p. 5), confirm that whenever therapists apply arts in therapy, they exercise these four principal defences:

 Condensation - the omission of parts of the unconscious material and the fusion of several unconscious elements into a single entity.

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- Displacement the substitution of an unconscious object of desire by one that is acceptable to the conscious mind.
- 3. *Symbolization* the representation of repressed, mainly sexual objects of desire by non-sexual objects which resemble them or are associated with them in prior experience.

4. *Sublimation* - the process by which energy, originally instinctual, is displaced and discharged in socially acceptable ways which are not obviously instinctual.

Edwards (2004), states emphatically that "psychoanalysis has played such an important role in the development of art therapy largely because it offers both a method and body of ideas for accessing and understanding the unconscious mind", (p. 44). Malchiodi (2003) in his concluding statement on psychoanalytic approach made it clear that most modern art therapists do not directly affiliate themselves to this theory. The writer explains that these modern art therapists have adapted to its varied contemporary modification in their practice. The writer hereby claims that "elements of these philosophies are present in many contemporary art therapy approaches to treatment". This claim validates the fact that Freud's psychoanalytic approach has greatly influenced the practice of art therapy and continues to make impact on new theoretical developments in the field (Edwards, 2004; Rubin, 2010). Some ways in which psychoanalysis has influenced other theories as enumerated by Edwards include: the structure and organisation of art therapy, the manner in which the therapeutic process is understood and lastly the interpretation of images, (Edwards, 2004 p. 45).

Jungian's analytic theory

While Freud is said to have brought about the connection between "the use of imagery, especially in dreams and treating the unconscious" to aid in the field of art therapy, Jung on the other hand, is said to have "attempted to relate to the unconscious image as an object from a number of perspectives", to explain the effect of art therapy on the individual (Niemi, 2018). According to Rubin (2010) Carl Jung believed that "there were messages to be "heard" in visual symbols"- something of great essence to art therapy (p.98). The writer continues to state that his approach to mental and artistic imagery is said to be respectful and intuitive. This respect Jung had for the individual client was due to his belief that images were rooted to one's personality (Searle & Streng, 2001). It was seen as much less analytical and deductive to that of Freud's theory of psychoanalysis. Thus, Jung found that 'building with natural materials and painting mandalas were helpful in his own self-analysis' (Case & Dally, 2006). This is a clear indication that the act of drawing among other therapeutic or creative arts can bring out the hidden and unvoiced emotions and thoughts of the individual. This act in turn, relaxes and puts the individual to ease. Granot, Regev and Snir (2018), suggest that Jung's theory projects the use of an artistically creative room and made provision for the client to opt for tools and materials they deem as befitting to produce their works.

For treatment to be made complete, Jung understood that there needed to be some dialogue between the unconscious which is the repository of achieved thought and events, and the conscious which is portrayed mostly through behaviour such as thoughts, actions, and emotions, in order to bring understanding of images produced by clients. Jung's experiences as well as his treatment of client through the use of picture making, created an understanding

that the technique had a "healing potential of the unconscious", (Searle & Streng, 2001 p.33). This assertion according to the writer is done through the 'transcendent function'. Jung is spoken of as believing in the fact that images 'speak' –how interpretation is made possible (Rubin, 2010). He believes that it would help the client attain "psychic equilibrium", which was necessary for healing (Malchiodi, 2003).

Malchiodi (2003) explains the fact that Jung's procedure or outlook to analysis was more of a "self-analysis" method rather than a therapist's imposition on the client. Jung is hereby, said to have believed that the client would tend to develop a state of reliance on the therapist if the view of the client was not sought during interpretation or put to use in therapy. Some concepts used in Jung's analytic therapy that have relevance to art therapy include spontaneous art expressions, amplification, and active imagination (Hinz, 2009). Though most of these tend to have a direct affiliation to psychoanalysis, Jung's analytic theory renders a different outlook to its approach to art therapy.

Spontaneous art expressions which also bridge the unconscious to reality is said to be an expression that is mostly nondirective in nature (Hass-Cohen & Carr, 2008). This form of expression is nondirective in a sense that the client is allowed to freely choose art form as well as material that would best suit the energy that lies within and needs to be expressed (Warren, 2008). Its nature could be compared to the free association method, in that the artwork avails the possibility for the client to attach meaningful thought, feelings and emotional experiences as well as making inference to individual item seem in artwork. According to Malchiodi (2003), this concept focusses more on the symbolism being communicated more than the artistic product more. The writer continues

to explain that this helps to "promotes the idea that all expression is acceptable and is intended to encourage more free communication of conflicts and emotions", (p.47).

The concept of transference in Jung's analytic theory unlike that of the psychoanalytic theory is made in relation to the client and the image (artwork). Though the relationship of the client and the therapist is spoken of as one that mostly promotes healing, in Jung's concept of therapy, the transference process is one that affects the artwork and not the therapist as is seen in the psychoanalytic therapy (Edwards, 2004). Searle and Streng (2001), point out the fact that images produced by clients carry a great amount of meaning transferred from the individual's archetype. For this reason, application of the amplification technique helps the inner person to interact adequately with the image. This according to them helps the client maintain a conscious attitude which in turn activates and integrates some form of transference between the image and its maker.

Amplification and active imagination unlike the above concepts, happen to be an original idea from Jung. Unlike Freud, Jung believes that aside the individuals' personal perceptions, images from dreams ought to be critically looked at in relation to "similar images from mythology, folklore, and comparative religion" (Malchiodi, 2003, p.50). This belief according to her would offer a better correspondence to the true meaning of the image (dream); she again states that "images cannot be interpreted by its content alone", but should rather be "considered in terms of what the content might symbolize" and be "given a meaningful context" (p.50).

Unlike free association that works around themes that might have relevance to that which is depicted by the client through artworks, (Granot, Regev and Snir, 2018) indicate that in amplification, any given art piece is given paramount attention through thorough scrutiny. This is what McConeghey (2001) terms as "sticking to the image. Thus, the image is examined carefully "from all facets" to ascertain any direct link it might have with reality in order to solve the challenge faced by the client. According to Keyes, there are basically two forms of amplification: subjective and objective (Malchiodi, 2003, p.50).

> Subjective – with the application of this form, the client is given the privilege to explore their "active imagination" to help make a connection to the symbol or image. This is to help unleash from within the individual ability to create by using "fantasy and dreams as a primary mode of healing".

> Objective – this form of amplification is done by the therapist. themes from mythology, folklore, and comparative religion that are relevant to the images are applied to help fish out the symbolism of the dream.

The active imagination procedure is sometimes seen as the expression of art itself – art of all forms (Edwards, 2004). According to Searle and Streng (2001), Jacobi Jung's associates see active imagination as "an active production of inward images", (p.35). The writers continue to explain that based on this reason, the client is encouraged to further concentrate on the image in order to unleash any connection it might have with the unconscious. Here, the transcendent function could be understood as a bridge between conscious and

unconscious elements in the psyche. Thus, Jung believes that a focus on whatever form of artwork which was 'spontaneously' created, helps explore more – "sticking to the image" – to enhance active imagination. McNiff (1994) adapted this technique and termed it as "dialoguing with the image". This procedure has been promoted in art form including movement, drama, and visual imagery (Rubin, 2010). Jung by this concept made it clear that fantasies were not to be confused with the product of the active imagination technique, (Searle & Streng, 2001). Feltham, Hanley and Winter (2017), assert that active imagination was borne from Jung's own "experience personal crises".

Edwards (2004) asserts that the analytic therapy is one that helps to create an 'active relationship' between the art maker and their images. A remarkable statement made by Jung to point out the value of his therapy on client was that "Often the hands know how to solve a riddle with which the intellect has wrestled in vain" (Edwards 2004, p. 31). Jung is said to have believed that the link between the artwork (images) and the psyche rest on the instincts which he termed as archetypes.

Jung's theory (ideas) is said to be the basics that helped to reinforce the basic concept in art therapy (Granot, Regev, & Snir, 2018). Thus, it is through his school of thought that art therapy was truly founded since he made use of art forms (images) in his work. According to Feltham, Hanley and Winter (2017), in applying the analytic therapy, talking is used as the "main tool in analysis". This could be accredited to his concept of amplification.

Discussions from a study conducted by Granot, Regev and Snir, (2018), indicate that Jung's theory perfectly facilitates the application of art therapy because of its universality, particularism of Jungian language (multiplicity of

meaning), vitality of Jungian language (the symbol being the way to the psyche), and the mediating function which mobilises the psyche (symbolism). The implication of Jung's therapy has been traced in a lot of art therapy procedures. This is due to the fact that these concepts have close relationship to the reason for art therapy – helping people to be in touch with their inner being by exploring works of art. Jung's therapeutic method is used by artist applying painting, drawing, and sculpture, though other art form also apply this theory (Sedgwick, 2001). Jung's analytic therapy seems to appear as the most suitable to the practice of art therapy since in its processes it tends to promote art activity (Rubin, 2010), unlike Freud's psychoanalytic therapy that believes in the 'talk cure' (Edwards, 2004).

Humanistic theory

The humanistic approach to art therapy encompasses psychological theories like the existential therapy Rollo May, person-centred therapy by Carl Rogers, gestalt therapy by Fritz Perls and the transpersonal approach by Pat Allen. Some common concepts that underline these theories include their perceptions of personal freedom, choice, values, responsibility, autonomy and meaning.

Like the Jungian's analytic theory, these theories highly regard the individual's subjective experiences, as expressed through art and each theory trusts the client to make positive and constructive choices on his or her own (Malchiodi 2003). The humanistic approach to art therapy unlike the psychodynamic and Jungian's analytic theories, does not necessarily base its emphasis on 'eliminating anxiety, unhappiness, or other emotions but to assist the individual in transforming them into authentic expressions through art modalities' (Malchiodi, 2003; Rubin, 2010). Humanistic therapies do not agree

to the overemphasis of healing – relieve from pain and psychological conflicts – being rooted to a person's past experiences or the unconscious as is in psychoanalysis. This school of thought rather adheres to the principle of "acceptance and the development of individuals in the present" (Rubin, 2010, p 100).

History has documented the fact that humanistic theory was launched based on the beliefs of early humanistic psychologist Maslow, who projected the need for self-actualisation and personal potential (Engler, 2006; Rubin, 2010). The artistic therapy also owes its roots to this theory through Josef Garai, an art therapist who believes in assisting the client "in transforming them into authentic expressions through art modalities" (Malchiodi, 2003, p.58). Both theorists believe in the power of the individual client to project from within some good energy in helping to solve outstanding issues of contention. Working together with the client to achieve individualism as well as the power to explore imagery and creativity is paramount to humanistic theories in art therapy (Malchiodi, 2003).

Josef Garai believes in a holistic approach to psychological healing. It was Garai who first conceived the thought of applying humanistic approach to art therapy. According to Malchiodi (2003, p.58) Garai believes the theory was relevant based on three principles he projected:

- 1. Emphasis on life-problem solving.
- 2. Encouragement of self-actualization through creative expression.
- 3. Emphasis on relating self-actualization to intimacy and trust in interpersonal relations and the search for self-transcendent life goals.

Gestalt approach

According to Feltham, Hanley and Winter, (2017), the word gestalt has no equivalent in the English language. The closest meaning of the word according to the writers is *pattern*, *configuration*, *form* and *whole* (p.568).

Gestalt therapy is a therapy that concentrates its dynamisms on the individual's ability to focus on the 'hear-and-now (Rubin, 2005; Feltham, Hanley & Winter, 2017). This involves the awareness of the individual's total existence – our body, feelings, thoughts, beliefs, and our environment. Gestalt therapists believe that art expression is therapeutic since it enables the individual "to know themselves as a whole person in a short time" (Malchiodi, 2003). The individual undergoing therapy in this field is given the upper hand to choose and enhance their ability to own their lives through their awareness (Feltham, Hanley & Winter, 2017).

Gestalt therapy is said to have a link to the person-centred and existential theories believe in the mutuality – in relation to the exploration of feeling and thought – of the relationship between client and therapist (Malchiodi, 2003). The writer elaborates that this theory encourages "responsible, honest, direct, and authentic communication between the person and therapist" (p. 63).

The gestalt therapy like most other therapies can also be used for individual as well as group therapy sessions. Children, adolescents, as well as family session have been used by many gestalt therapists to help their clients (Malchiodi, 2003; Rubin, 2005).

To serve as a tool that would boost the primary aim of accepting and developing the individual, in the present (Rubin, 2010), the gestalt therapist is said to "encourage active participation and enactment by the individual,

believing that through sensory-motor activation, there is recognition and clarification of problems" (Malchiodi, 2003, p.63).

The basic practice in gestalt therapy is coaching the individual to "consider forms and patterns of visual messages and to actively perceive what is going on" (Malchiodi, 2003). This continues to emphasize that the therapist in the field believes in the potentialities of their clients. Consequently, individuals are seen as "capable, active, and committed to realizing and achieving their own potential" (Malchiodi, 2003, p. 64). This, the writer clearly explains that it is the client who strives to finish up task for attaining the set objective as well as evaluating their own artworks. Joseph Zinker, a Gestalt therapist who believed in the therapeutic powers of art therapy, stated that it "allows people to know themselves as a whole person" (Malchiodi, 2003, p. 63). **Conceptual Review**

In order for the researcher to create a clear understanding of the variables under study, the researcher first examined the concepts of individual variables and the relation between information gathered on the two variables. The researcher has developed and interpreted a conceptual framework depicting the relationship between stress and art therapy.

Stress

The concept of stress, lifelong stress, the stages of stress, causes of stress, types of stress, occupational stress, effects of stress, management, and preventive measures of stress, as well as the advantages & disadvantages of stress are discussed here.

The concept of stress

As established earlier, stress is a worldwide phenomenon that is of great concern to the life of humans. The dire impact of stress on the individual's health, social cohesion, work and productivity has over the years, given grounds for numerous studies to be conducted on this subject. Gelabert (2008), explains the fact that stress and anxiety both tend to make clear "how the mind influences the body and vice versa" (p.9). According to Cordon (1997) there are as many definitions for stress as there are a number of triggering events that lead to stress. In like manner, Rulli (2014) explains that "stress assumes different meanings according to the disciplinary contexts in which it is used, and the objectives pursued by whom deals with it" (p.19).

A well-known Australian-born physician, Dr. Hans Selye (1907-82), who is said to be the foremost authority in stress – father of stress research – identified the following terms as the most frequently referenced words used to express stress (Willis, 2007). According to the writer, among other expressions and personal reaction to life, mankind tends to use words like: "*uptight*', *'strain'*, '*anxiety'*, '*worry'*, '*tension'*, '*trauma'*, '*tense'*, '*pain'*, '*hassle'*, '*headache'*, '*under pressure'*, '*rat race'*, '*melt down'*, '*burn out'*, '*critical state'*, '*wear and tear'*," (p. 8).

Akosa (2018) simply describes stress as 'a natural component of everyday living, a bit of which the body requires to keep it in shape'. Coleman (2006) describes stress as a "psychological and physical strain or tension generated by physical, emotional, social, economic, or occupational circumstances, events or experiences that are difficult to manage or endure" (p.731). Stress could also be seen as "any environmental demand that creates a

state of tension or threat and requires change or adaptation" (Morris & Maisto, 1999). A much simpler explanation to this phenomenon would be "any event that strains or exceeds and individual's ability to cope" (Lahey, 2012, p.425). Bernstein, Clarke-Stewart, Roy and Penner (2003) claim it is "the process of adjusting to circumstances that disrupt or threaten to disrupt a person's equilibrium". According to Becker (2013), stress is "both a force outside the person and an inner state". By this, the writer was referring to the two types of stressors, intrinsic and extrinsic – from within the individual and that which the individual experiences from the environment.

Scientifically, the unset of a stressor is said to trigger the hypothalamus which is "a tiny region at the base of the brain" that "instigates the fight-orflight response" — a combination of nerve and hormonal signals" (Stangor & Walinga, 2014, p. 681). The writers further contend that the above system tends to prompt "the adrenal glands, located at the top of the kidneys, to release a surge of hormones, including adrenaline and cortisol", (p.681). Christopher (2004) explains that stress is "the heightened arousal state that occurs during the perception of a threat or stressor results from the interaction of complex systems of biological, psychological and social processes", (p. 111).

Selye in Willis (2007), defined stress as "the state manifested by a specific syndrome which consists of all the nonspecifically-induced changes with a biological system", In much simpler words, he further breaks the definition down by saying, "stress is the nonspecific response of the body to any demand, whether it is caused by, or results in pleasant or unpleasant conditions", (p.8). By this definition, it is clear that Selye provides the summary of what the component of stress really is, that is to say that stress does not only affect the

body physically but also has some psychological strain on the individual. With reference to the word non-specific, he states that "the body reacts the same regardless of the cause" (Larkin, 2005, p. 72). Selye explain that the component reactions of stress can be a pleasant or unpleasant reaction, real or imagined because of the present adaptation of the body at a given time.

According to Larkin (2005) the stress phenomenon as we know it today, was a result of works of Walter Cannon and Hans Selye. Cannon, who is said to have been a physiologist at Harvard University used the term 'homeostasis' to express the body's internal mechanism of maintaining equilibrium. With this, Cannon is noted as "the first clinician/physiologist to identify the physical characteristics of the initial phase of stress" (Willis, 2007, p.8). Cannon believes that as nature or the environment presents varied challenges to an organism, "the body must respond to each new situation by adjusting various physiological systems to compensate for the resources being taxed" (Larkin, 2005, p.71). The writer continues to explain that "if an organism's response to threat involves significant sympathetic nervous system arousal so that respiration and heart rate increase significantly, the body's compensatory response should involve either reducing sympathetic nervous system activity or increasing parasympathetic nervous system counter-activity", (p.71). Cannon's research provides "valuable information on the role of adrenaline in the body" which in turn "provided new insight into the workings of the nervous system" (Scott, 2010, p.12).

Selye on the other hand was a physician and professor at the University of Montreal. With Cannon establishing the reasoning of homeostasis in relation to the body's internal mechanism, Selye is said to have drawn on the 'physics term' (Larkin, 2005), or the 'engineering term' (Willis, 2007) – 'stress', which

referred to "pressures exerted on a system" (Scott, 2010) – and applied it to the day-to-day pressures seen the human organism, thus 'the effects on the organism rather than the environmental stressors' (Larkin, 2005, p.72; Willis, 2007, p.8). With Selye's research, he investigated issues relating to or stress in man's life, which makes him the first to appraise the phenomenon stress. Fact from his studies prove that "stress' response of the organism represented a common set of generalized physiological responses that were experienced by all organisms", (Larkin, 2005, p.72); and that the human organism was designed with a "natural mechanism to respond and adapt to stress" (Scott, 2010, p.12). the common grounds of these researches have led to a number of studies on stress and its effects on mankind.

It is an established fact that at any given time in life, people tend to feel stressed and burdened with life's activities such as planning things; pondering over what to do in the present life; relating whatever happens around them to past experiences; and imagining what the future would be like. According to Melgosa (2006), all such events tend to put pressure on the nervous system. This the writer claims results in some sort of psychological and physiological stress. Gelabert (2008), creates an awareness that stress "is not a disease" and that it does not even "appear as a symptom in the clinical course of any disease" (p.9). Rulli (2014) also asserts that "in the term stress both causal aspects and the effect emerge" (p.20). For this reason, it is important to note that stress may have a different meaning to every individual. Thus, individuals encounter stress through different means and have different degrees at which each person happens to tolerate situations around them. According to Scott (2010) this is because of the "unique physical and personality traits" mankind possesses, as

well as "the individual circumstances of our lives" (p.11). This is to say that to some individuals, stress could be seen as an activity or event or situation that causes tension, pressure, or any negative emotions such as anxiety or anger among other reactions, whiles the same stressor would be well tolerated by another individual, hereby, aiding in completing a given task.

From the above, one can note that stress in too many ways has proven itself as a negative instance in the lives of many, yet it happens to have a good or positive impact in daily lives. Research has proven that some level of stress is needed for man's survival (Larkin, 2005; Gelabert, 2008).

Lifelong stress

Melgosa (2006) and Willis (2007) both discuss general cases of stress that individuals undergo through life's journey. In Willis's view, "stress is stimulus to growth and development all through life". The writer hereby continues to explain that stress is a "'womb-to- tomb' experience with pre-natal influences affecting our lives right through until the time we die" (p.109). Melgosa on the other hand, claims that stress is generational experience that "tends to occur at a common age". This he called "developmental stress" (p.89). Some of the lifelong stresses individuals go through according to the (Melgosa, 2006, p. 89-94; Willis, 2007, p.111-118) include the following:

Birth-Postnatal (Infancy): - the age range for this stage of life is infants -2 years. As babies grow, they go through activities that tend to frustrate them in their growth. Activities like learning how to craw, taking a first step to walk, feeding themselves, gaining the trust of adults especially, caregivers and learning to speak among other responsibilities, become a burden on this group of people.

- Preschool Age: here children within ages 2-6 years face stressful problems like establishing lasting relationships with siblings and other children, learning to adjust to educational norms of conduct and the issue of developing fear.
- Elementary Age: ages 6-12 years is the period set for this group. This group tends to have learning problems, group pressure, emotional imbalance, anxiety, phobias, depression, and development of self-esteem as a challenge to their development.

Puberty & Adolescence: - the youth between 11-18 years belong to this group. They have stressful problems such as adjusting to physical changes, increase in peer pressure, striving to become independent and acquiring self-identity among peers. The problem with concentrating on studies at this stage is relevant since the child at this point develops an increase in the awareness of opposite sex relationship. Because of the awareness of what it means to be with the opposite sex, teenagers at this stage also tend to have an instinct to what procreation is all about and delight to do as such. At the latter part of this stage children happen to be faced with a problem of making the right decision, especially when it comes to matters on career choice.

Willis (2007) indicates that the stressful encounters that children undergo can be categorised into two forms: the physical and behavioural. The writer also points out the fact that the adolescent period is divided into three phases – the early, middle, and late phases (p.112) – that somewhat overlap each other. This overlap, according to the writer comes with distinctive problematic features.

The above stressful stages in childhood and adolescents are also seen in Sigmund Freud's classification of the psychosexual development of the child, namely the oral, anal, phallic, latency, and genital stages. The evidence of Sigmund Freud's statement that if a given stage is not dealt with as naturally as it should, the individual is to some extent affected later in life (Engler, 2006), comes to play here. This assertion means that at any present stage of an individual's growth, he or she has a task to perform which results in developing one's personality. If the grounds for development are over utilized (through fixation) or not well utilized to its maximum; the psychosexual phenomena according to Sigmund Freud would play a major role in the individual's personality (Corey, 2012). According to Freud, these inconsistencies contribute a lot to the many other stressful problems an individual can have later in life.

Below is a summary of stressful experiences individuals face during the young adult, middle age and late adult phases of life (Willis, 2007, pgs.144-150). The stages were deduced from Erikson's psychosocial stages

 Young Adult: - at the age of 18-40 years one is considered as a young adult. Unemployment, beginning to work, the experience of being in an intimate relationship, starting a family, arrival of children, and the task of reaching professional advancement tend to be the stressful problem this group goes through.

2. *Middle Age* (Adult): - by the ages of 40-65 years, the stressful problems which individuals happen to face include problems with dealing with their children, especially adolescent children as well as old parents, the beginning

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of health problems, completion of one's professional life, and in some cases, unemployment.

3. Retirement & Beyond (late adult): - having worked all of one's life, from 65 and above, individuals are expected to relax in life from the hassles of work, yet they happen to also face stressful problems. These include health problems, loss of ability, economic issues like managing finances, death of a partner, and loneliness.

Though much is not really said about the effects of stress on the male gender, Melgosa (2006) and Willis (2007) make it clear that when dealing with the feminine gender in relation to issues of stress, one must note that the female specie is a peculiar one. Melgosa (2006) categorically notes the fact that "women's physical and emotional composition give them a greater ability to deal with stress" (p.98). Notwithstanding, both authors observe that women due to the rise of hormonal levels from time to time, tend to go through other forms of stress aside the general ones already listed. These stressful problems which are mostly rooted in gynaecological and obstetric conditions are noted in the following areas (Willis, 2007, pgs.137-142):

- 1. *Adolescence*: a desire to be extra 'beautiful', the onset of the menstrual cycle, fear of pregnancy among sexually active youth desire to be loved, and depression from breakups or other emotional issues faced by adolescent.
- 2. *Maternity*: sterility, family planning, pregnancy, delivery, giving birth, postpartum depression, thought of losing the baby, postnatal 'blues' and raising a child, can be very stressful for women. With the exception of

sterility, the above problems are linked to the enormous change in the body, both physical and chemical.

3. *Marriage Relations*: - having an unloving or violent husband, thoughts of one's physical appearance, divorce, and an extra duty of taking care of the children aside other house duties, are major issues women consider as

stressful in marriage.

4. *Menopause*: - the desire to maintain a nice figure, have a smooth face, and issues that have to do with digestive, sexual, psychological, skin, soft tissue, and skeletal problems, vaginal atrophy, and vascular instability all become a great threat to grown women. This dramatic but erratic fluctuation is a result of a change in 'absolute levels' and 'relative levels' of oestrogen and progesterone.

Melgosa continues by focusing on occupational stress and its impact on women. The writer states that among other stressors within the work field tend to face issues like sexual harassment, sexual discrimination and also sexual stereotypes. These the writer explains that unless the world understands the impact of stress on women, – "unfavourable position in which women find themselves" – mankind would be able to create a society based on "mutual understanding based on both sexes" (Melgosa, 2006, p.104).

Stages of stress

To delve better into what the stages of stress really are, Selye is said to have noted that the human body goes through three stages when confronted with stress. The three stages include the Alarm stage, Resistance stage, and the Exhaustion stage (Hahn, Payne & Mauer, 2005).

Alarm stage: -

The body possesses a state of homeostatic physically and psychologically, when activities around the individual introduces stress into the system the homeostasis of the body at this stage is tempered with. Thus, when the individual is exposed to an event that is perceived threatening, it results in alerting the brain's consciousness as well as the body's awareness to physical reactions associated to stress. These are clear warnings. When a stress agent is present; consequently, the brain senses attack from stressors and advances to the flight response whiles physical reactions set in (Larkin, 2005).

These changes that occur here are controlled by the hormonal and nervous systems which trigger the fight or flight response. This is an action that provides the individuals body with energy to either face or resist, walk away or flee from any danger that comes along with stress (Hahn, Payne & Mauer, 2005). After noting the causes of stressors, the writers advise that an individual should take measures to control stress. If stress not controlled it exceeds its grounds, and the individual would be left with no strength to go about activities. *Resistance stage:* -

Stress, at this stage exceeds the alarming level, and frustration sets in. The individual loses a lot of energy, and the production level of the individual reduces leading to fear of failure (Becker, 2013). After a prolonged fight to resolve this threat, the body stops fighting the change. Thus, with reference to haemostatics as stated above; considering the state of imbalance that sets in during the alarming stage, the body at this stage tries to establish equilibrium (internal balance). This action helps to set the system in the right course.

Due to the above changes, there is a reduction in the intensity of response to a more manageable level. Having adjusted to the changes and therefore

attained a new level of homeostasis, most body systems including the hormones and nerves keep this energy level under control and return the body to a normal level of function. Selye hints the fact that at this stage, some "organ systems such as the cardiovascular and digestive systems become the focus of the body's response" (Hahn, Payne & Mauer, 2005, p.55). This explanation, the researcher believes is the contributing factor to the listed disorder stress has on body functions under the sub-topic effects of stress.

Exhaustion stage: -

The longer the body stays under stress, the more the body system is negatively impacted and stays out of balance (Larkin, 2005). This assertion implies that long-term stress at this stage tends to exhaust psychological and physical energy. Symptoms such as fatigue in the form of sleepless nights, tension and feeling angered by a little thing come up as a result of the body undergoing continuous stress. Anxiety also sets in most stressful situations. These come along the feeling of depression; the individual begins to have pessimistic thoughts as well as negative feelings that result in the individual rejecting and blaming self for the bad turn of activities. Depression creates a room for the individual to conceive ideas and thought of being inferior, irresponsible, and incapable as well as dejected in the midst of colleagues.

To a large extent, when the psychological and physical resources which the body relies on to fight stress are used up, the stress producing hormone such as the adrenaline rises again (Hahn, Payne & Mauer, 2005). At this state, chronic illness tends to develop as a result of the body's inability to check stress, caused by chronic stressors around the individual. These chronic stressors create continuous state of alarm and resistance, hereby the individual 'no longer has

the adaptation energy stored for fighting a distress and serious illness may result'.

Causes of stress

In paying a critical attention to the different types of stress that exist, researchers have come to the realisation that this phenomenon can be caused by a wide range of events, some noticed and others happening unnoticed. Stress, according to Kahn (2006) is inevitable in human beings. For this reason, to maintain good health without stress causing any form of threat to one's health, individuals ought to recognize and understand the causes of stress. This would aid individuals on how to manage possible stressor in order to alleviate unseen dangers associated to stress. Some components of life that tend to permit stress and have a great impact on individuals as listed by Cope (2003) include issues like the individuals' personality, gender, age, and career stage (ranking), educational and social status, social support, self-care, cognitive and or rational coping and recreation. These according to the writer all tend to contribute differently to the amount of stress an individual face in relation to that which another individual would experience.

Willis (2007) identifies fears and phobias as possible stressors to people of all ages. The writer indicates the innate tendency of the brain – amygdala – to respond to sensations that naturally sparks up fear. According to the writer, fear when held on to, can generate into a neurotic reaction, anxiety, or a phobia. A research report by Mental Health Foundation (2018), proves that one potential cause of stress could be long-term health conditions. In their report, they made it clear that long-term health condition of an individual or that of a close family

or friend tends to have a toll on people and it, contributes to a high level of stress.

It is worth mentioning that modernity and technology could also be a source of stress to many people. Technology in many ways, has taken over the manner in which brands and services are executed. Thus, "what used to be a one-way conversation is now a multifaceted" (U.S. Chamber of Commers Foundation, 2012). According to the research manager of the project, the millennials – people born from 1980 to 1999 – "have an almost innate mastery of technologies and how to use them in business, education, and everyday life" (p.37). Unfortunately, most of those born before this era, have issues with technological garget and their operation. This inability or incompatibility tends to impede their advancement generally in work and life.

Mans' anxiety to accomplish has always been the driving force that sets him to task, yet over anxiety on duty could also be unfavourable to one's health. Work has in many ways, be found to be a trigger of stress worldwide. Mental Health Foundation (2018), state that this has contributed to the wideness of research work done on this subject – occupational stress or work stress. Segal, Smith, Robinson and Segal (2018) create an awareness that things such as the fear of being laid off, overtime due to staff cutbacks, pressure to perform and meet rising expectations – with no job satisfaction, lack of control over how one does his/her work and pressure to work at optimum levels all the time are common causes of occupational stress. One other stressor in relation to work is the desire to gain financial security. According to the Mental Health Foundation's report, the quest to improve upon the socioeconomic status or advancement in one's financial position has contributed widely to the stresses

faced in relation to work, socioeconomic status as well as the mental health of individuals. More on this subject is discussed extensively later under the caption *occupational stress*.

Mental Health Foundation (2018) indicates that one silent cause of stress that might not really be a much discussed subject is the issue of facing financial challenges and insecurities. It is a clear fact that the strive to secure enough funds for individual's needs as well as that of loved ones, the insecurities of constant monetary resources, insecurities of a secured work among other financial commitments tend to play on thought and emotions and if not controlled affect general wellbeing. The Foundation reports that in a previous poll, 22% of adults who reported stress in the previous year cited financial concerns as a source of stress.

Types of stress

Stress could be categorised in to different ways based on different features of the phenomenon – health perspective, the individuals' response, among other influences. Rice (2012), states that in Selye's research, he attempted to distinguish between agreeable (healthy) and disagreeable (pathogenic) stress as qualitatively different phenomenon (p.26). As a product of Selye's research, he created an awareness that qualitatively different phenomenon of stress can be experienced in two different ways; good and bad (Scott 2010). He termed good stress: eustress, which is seen as healthy, and positive or challenging in nature, and bad stress: distress, mostly related to pathogenic stress, with negative or a threatening effect on the individual (Willis, 2007; Scott, 2010; Stangor & Walinga, 2014).

Willis (2007) describes the two types of stress as two ends of the same thread. Eustress is said to be less harmful since its impact is less damaging, whiles distress could be harmful and more damaging (Rice, 2012). Eustress is also seen as "affirmative, beneficial, productive, and physically dynamic" (Willis 2007, p.9). According to Stangor and Walinga (2014) this form of stress "is not necessarily debilitative" since it rather provides the ability for the individual to thrive (p. 682). Being the positive aspect of stress, eustress is evident in cases of exciting and pleasant activities, such as marriage, rewards, and promotion, these results in a kind of stress that is not harmful to humanity.

Donatelle and Davis (1998) state that "distress is stress that can have a negative effect on health" (p.63), thus, distress is that aspect of stress that tends to be unpleasant and harmful to the whole body. Distress on the other hand, being the negative aspect of stress is mostly noted in situations such as loss of a relation, financial problems, and inability to meet social demands. Whereas eustress promotes the energies that help increase performance, destress tends to negatively affect an individual's health as well as a decline in task performance.

In the light of the above explanation, one can say that during eustress, the individual tends to possess a sense of being at the helm of affairs, whereas during the distress period, the individual has a general feeling of not being in control of affairs (be it actions or feelings). The clarity of this phenomenon is explained by Willis (2007), who states that eustress serves as "a spice to life" (p.9). Hence, it is a stimulus to help reach an adequate level of accomplishment and success. This implies that a moderate amount of tension is vital in life or that certain levels of stress are actually healthy.

With reference to Selye's definition that "stress is the nonspecific response of the body to any demand...", it could be noted that individuals experience stress differently. This could be attributed to the different responses individuals tend to have towards a given situation (demand). Subsequently, as a result of individual differences and different backgrounds in education, family, community, up-bringing and so on, stress could present itself as a threat or motivation to an individual.

Literature reviewed make it clear that there are two types of possible responses that an individual goes through as a sign of experiencing stress (Melgosa 2006). These responses are physiological and psychological. For physiological responses, the individual tends to face change in functional abilities physically. An individual's physiological response to stress can be experienced through an increase in heartbeat, muscle tension, emotional and behavioural changes. On the other hand, the individual faces psychological stress by experiencing a loss of intellectual capacity, irritability, insomnia, anxiety, inhibited sexual desire and depression. Psychological responses, when faced mostly, affect the functions related to cognition. It can be noted that a combination of these two forms of stress response can be really depressing and burdensome for the individual to bear.

Occupational stress

The term occupational stress is a word used in explaining what most people term as workplace stress or work stress – the strain resulting from job related activities. According to Roberts (2010) occupational stress can be seen as "the pattern of physiological, cognitive, emotional, and behavioural reaction to some extremely taxing aspects of content, work organization and work environment", (p.23). Willis (2007) quotes Ellis, who in her script on '*Stressed-out workers explode in desk rage*' indicates that "the increased workload we all have to deal with today have made stress a real fact of working life" (p.126). This assertion proves that stress is a well-noted part of the work environment, considering the increase in the expectations placed on workers to meet product or service expectations. Mental Health Foundation (2018), also in their research report create an awareness that the most frequently researched aspects of stress are work-related stress. This creates an understanding that the subject of occupational stress is one that needs much attention.

According to Towner (1998), "stress, whether it originates from events in our personal lives or in the workplace, will, eventually affect us at work" (p.11). For this reason, the writer advise that it is efficient that individuals manage their time and energy appropriately. The researcher believes that this assertion can secure a balanced atmosphere in an individual's state of health and ultimately contributes to the stability in every sphere of the individual's life. In a research on 'Occupational stress and its management among women in managerial position' the writer explains that the effect of stress at the workplace has a lot to do with the strain on the total human system (Roberts, 2010). Rulli (2014), also indicates that wellbeing is an "integrated dimension' in the process of work". The writer explains that like all other work perfectible, an individual's wellbeing also plays a role in getting the work done. The above writers all point out the need to protect and maintain the health and wellbeing of the worker in order to secure the productivity envisage for any given work.

According to Willis (2007) it is important for one to note that whatever the trigger of stress might be at any given point in time, its impact cannot be

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disregarded especially in the field of work. A list of some indicators of occupational stress as listed by Segal, Smith, Robinson and Segal (2018) include the following: - feeling anxious, irritable, or depressed, apathy, loss of interest in work, problems sleeping, fatigue, trouble concentrating, muscle tension or headaches, stomach problems, social withdrawal, loss of sex drive and using alcohol or drugs to cope. Cope (2003), in handling the issue on organisational effects of stress states that as individuals, our behaviour and the effect it has on our work could be seen as a 'continuum'. The writer explains further by saying that "absence from illness, poor timekeeping and task performance at one end, and labour turnover, low group morale, productivity and poor industrial relations, at the other" all tend to minimize work output.

In discussing measures on how to prevent work-stress, Rulli (2014) indicates the focus is not made only on 'the action aimed at avoiding the encounter' but also paying more attention to 'the action to prevent the realization of conditions of harmfulness' (p.23). Here, the writer once again points out to the fact that prevention of occupational stress is a 'perfectible process' and not an intervention. That is prevention of work stress should not come up as a result of curbing this peculiarity but rather be an integral work structure that is in place to avert stress altogether. Due to the above reasons, Towner in dealing with the issue on '*The legal responsibilities of the Employer*' hints on the fact that both employer and employee owe allegiance to each other as well as the institution or factory or any work site for that matter (Towner, 1998). This is believed to be the foundation that is intended to create a harmonious environment for the employee to work, further resulting in the employer meeting his expected profit margin.

White (1998) in discussing the subject '*Key responsibilities – the main specifications*', projects that employers should consider exact responsibilities of employees when taking in new recruits; that is to say they should consider clearly and specifically what the person would be doing. This, according to him, should be done by first classifying the duties into primary and secondary responsibilities associated to a given activity. He noted the primary responsibilities as those that the person must fulfil, while the secondary included the responsibilities the person should try and fulfil in line with his or her basic duties. The writer believes that if employers should put such a clear distinction of responsibilities in place, the main target of any industry would be met on time, and occasions of stress would be minimized.

White continues to express the fact that since employers aim at making profit, they mostly do not create specific job descriptions for workers but rather encourage them all to work together to fulfil a task. This, he believes is the cause of work not being done to meet specified deadlines. According to him, specification should be made when instructing workers. The writer here makes it clear that without a clear cut role for workers, a business would collapse. For this reason, he encourages the use of minimum performance standards (MPS) as an important standard of measure for work done. The defines MPS as 'the minimum acceptable standard of performance for that activity' (White, 1998, p.16). By 'that activity' he meant a given responsibility for instance, being a secretary.

Considering the above proposals, one would note that the harmful physical and emotional responses that occur when the work does not match the capabilities, resources, or needs of the worker, come to light. For this reason, if

care is not taken to manage workers and resources alike, this lack of ability to work, insufficient material and equipment as well as the demands of the specified work, would constantly stand as a basis for occupational stress to occur and reoccur in any given business.

Ellis, Willis (2007) explains that the increased workloads humans have to deal with today, have made stress a real part of working life. As earlier stated by the researcher, this very situation is becoming more and more evident in the Ghanaian society and if care is not taken, such a menace would affect the national economy. Professor Sir Michael Marmot of the University College, London points out that the root of the problem may be poor work design, which seems to cause some sort of mental and physical illness. He continues to suggest that employees are most likely to be productive if management practices are equally good. The researcher believes that the hidden problem here is that most employers are preoccupied with their own stresses that they hardly notice those of their subordinates.

The best way to control workplace stress it to identify the sources through which workers encounter stress. Ahsan, Abdullah, Fie and Alam (2009) identified that academic workers are affected by stressors such as homework interface, role ambiguity, work overload and performance pressure. Other researchers such as Lam and Punch (2001); Winefield and Jarret (2001); Rutter, Herzberg and Paice (2002); Ofoegbu and Nwandiani (2006); Ahmdy, Changiz, Masiello and Brommels (2007) have also identified other academic stressors as listed below:

- Poor motivation
- Frequent interruptions

- Inadequate salary
- Manuscript preparation
- Office accommodation
- Long meetings
- Campus militancy
- Conflicts
- Feeling of underutilization
- Delay and irregular payment of salary
- Slow progress on career advancement
- Strike and other school interruptions
- Financial support for research or lack of research facilities
- Blockade in autonomy to make decision on different tasks
- Difficulty in securing research funds and conducting research
- Inadequate resources for appropriate performance or lack of instructional facilities
- Demands from colleagues and supervisors or poor faculty communication
 - Incompatible demands from different personal, unrealistic expectations from management, organization roles and conflicting job demands and or professional disillusionment
- Lack of annual leave/ holiday and underfunding of education
 - 1. High self-expectation
 - 2. Role overload

Insufficient competency / development to the demands of their role

When all the above stressors are dealt with, stress levels of most academic workers would be reduced significantly. This would in turn, improve good health in workers and increase work productivity. These two are very necessary for occupational development.

Effects of stress

According to McEwen and Stellar (1993) "stress refers to responses that are costly in terms of arousal of physiologic systems and elicitation of behaviours that are harmful" (Rice, 2012, p. 31). Stangor and Walinga (2014) indicate that it is the individual's perspective of the experience that determines the stress level. To them, arbitrary and relative factors such as "gender, personality, character, context, memories, upbringing, age, size, relationships, and status" determine the effect and levels at which stress affects an individual. Stress is spoken of as not being "a mental health problem in and of itself"; yet it is explained that "experiencing overwhelming stress for a long period of time... can impact on both physical and mental health" (Mental Health Foundation, 2018). According to Scott (2010) when an individual has a poor stress adaptation or stress is not controlled, this could be the basis of many disease states. Melgosa (2006) states that stress is the beginning of a number of diseases, (p.18). Mental Health Foundation (2018), also make it clear that the effect of long-term stress on the individual varies vastly from one person to another. It states categorically that this could "have far reaching consequences if left unmanaged" (p.9). Some few effects mentioned in the report include the

fact that sleep and memory are affected, one's eating habit also changes while habits like drinking and smoking become more habitual.

Stress as explained by (Melgosa, 2006, p.19) earlier has to do with one being "subjected to intense physical strain or the force exerted on a body resulting in deformation or strain" (Melgosa, 2006, p.19). By this, Melgosa is pointing to that aspect of stress that affects the physical body. Stangor and Walinga (2014) indicate that "The long-term activation of the stress-response system – and the subsequent overexposure to cortisol and other stress hormones – can disrupt almost all of the body's processes and increase the risk of numerous mental and physical health problems" (p. 681).

Though research has proven that men are said to be affected by (likely to die of) issues like coronary heart disease, alcohol-related diseases, and average life expectancy eight years shorter than women, Cooper and Bright (2001) make it clear that in dealing with issues of stress, women are said to report more stress symptoms as well as health-related behaviours connected to stress than their male counterparts. This observation indicates that an individual's gender in some way, informs the rate at which stress affect us. The writers try to explain why this could be true by stating that the general perception or cultural expectation from men prevents them from expressing their stressful experiences. They believe that if gender roles should equalize there might be a much lower and noticeable difference between genders and the effect stress has on them.

According to Larkin (2005) stress is expressed in four major perspectives to life. These are the affective, behavioural, cognitive and the physiological aspects of man's life. Bernstein, Clarke-Stewart, Roy, & Penner

(2003) on the other hand, claim that stress is rooted in the psychological, physical, emotional, cognitive, and behavioural aspects of life. Scott (2010) also holds a view that stress has an emotional, psychological, behavioural, biological, and physical aspects. The above suggests that stress to a large extent causes an immense change – positive or negative – on the entire human body

systems.

Some ailments that could affect mankind as a result of stress as listed by Bernstein, Clarke-Stewart, Roy, and Penner (2003); Hahn, Payne and Mauer (2005); Larkin (2005); Gelabert (2008); and the Mental Health Foundation (2018) among other authors, have been enumerated into the different facets of life as discussed above. These include the underlisted health problems even though the effects of stress are not limited to this list:

<u>Affective/ Emotional/ Psychological</u>: - Depression, anxiety, anger, guilt, and fear

<u>*Cognitive*</u>: - Worrying, poor concentration, rumination, loss of sense of humour, hopelessness, selective attention, maladaptive catastrophic thinking and thought blocking

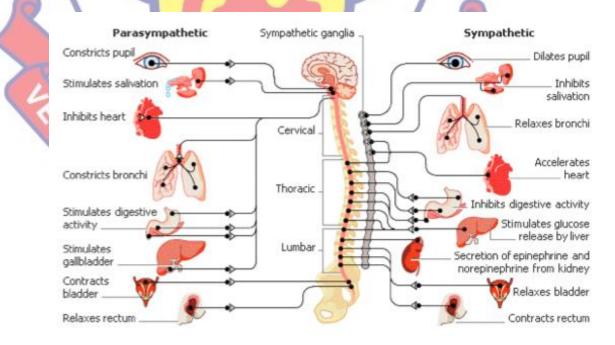
<u>Behavioural</u>: - Substance use or abuse, avoidance, social withdrawal, overeating /undereating, frequent urination and prostatic symptoms: prostatism, irritability, aggression, and inactivity

<u>Physiological/ physical</u>: - Skin disorders: psoriasis, angina, coronary thrombosis: heart attack, headaches or migraines, glucose alteration, tremors and nervous tics, rheumatoid arthritis, hyperthyroidism: overactive thyroid gland, hyperventilation, menstrual difficulties,

impotence, autonomic arousal, muscle tension, hay fever and allergies, peptic ulcers, dry mouth, rapid tiredness, abdominal pain and diarrhoea, dryness and rashes, diabetes mellitus, pruritis: intense itching, chest pains and hypertension: high blood pressure, coughs and asthma, neuroendocrine activation, compromised immune function, constipation, nervous syspepsia: flatulence and indigestion, colitis, and

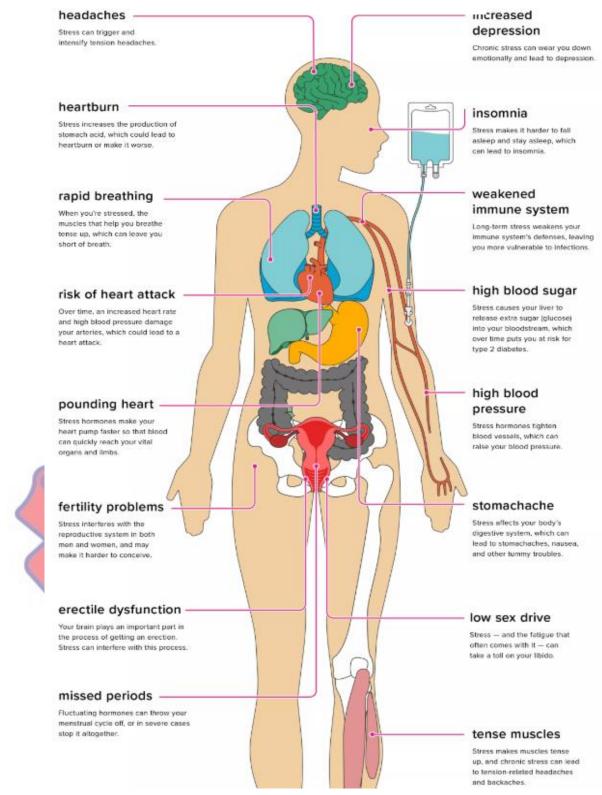
tuberculosis

Batson (2018) simplifies the above effects and negative health implications in a graphical manner. He indicates the different parts of the body that tend to be affected by stress. Figure 1 (Physiology of stress response) indicates the varied stress responses of the different physiological parts of the body, while in Figure 2 (The Effects of Stress on Your Body) on the other hand, identifies the different effects of stress on the body.



Physiology of stress response

Figure. 1 - Physiology of stress response by Joseph Batson, adopted from The American Institute of Stress



The Effects of Stress on Your Body

Figure.2 The effects of stress on your body by Joseph Batson, adopted from The American Institute of Stress

A forward written by Meyer in *'The encyclopaedia of stress and stressrelated diseases'*, advise that when seeking medical history during consultation, physicians could be of help by delving more into questions related to 'home, workplace, community, or school'. By this advice. Meyer believes that if any trace of a stressful event is identified in the client's narration, it could help to identify any stress-related disease and hereby advise patient as well as provide necessary treatment.

The concept of homeostasis introduced by Cannon "has proved to be very valuable in explaining how acute physiological stress responses to threats of survival lead toward chronic stress responses" (Larkin, 2005, p.71). Homeostasis, according to Rice (2012) is the "regulation of the body to a balance". Chronic stress can be harmful to both mind and body. It can weaken and damage the immune system, cause insomnia and depression, and trigger a host of circulatory problems (e.g., high blood pressure, atherosclerosis and cardiac arrhythmia). This is possible due to the over production of the main hormonal mediators of the stress response which includes the epinephrine (adrenaline) and cortisol (Rice, 2012).

Despite the discussed effects of stress, research makes it clear that stress "enables people to perform feats they would never have believed they were capable of" (*Awake*, 2010, p. 3). This is further explained by indicating that though an individual may be stressed, 'the body generates a surge of adrenaline' that enables the individual to finish a given task. For this reason, no matter how much an individual might be stressed, the body would provide some amount of energy to go through an assignment. Notwithstanding, one must be careful not

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to abuse reserved energy; since the body thrives on such energy to move about in stressful periods.

Management and preventive measure of stress

Cope (2003) quotes Cox who states that "coping is a form of problemsolving behaviour, whereas stress is the result of failed problem solving". Cox further explains that coping entails both the cognitive and behavioural means, and hereby "represents either an adjustment to the situation or an adjustment of the situation" (p. 49). According to Segal, Smith, Robinson Segal (2018) individuals when at work, are faced with "long hours, tight deadlines and everincreasing demands". All these tend to result in individuals "feeling worried, drained and overwhelmed". For this reason, workers would have to measures to control the strain in order to maintain good health and promote productivity. According to Hobfoll, coping is resourced in two different ways: 'internal and external resources' (Cope, 2003). The internal resources for coping according to Hobfoll refers to all the inward drives that individuals put to play in dealing with stress – one's personality as well as the personal style and ways of looking at a problem. External on the other hand, focuses on social support the individual gets from those around him/her valued aspects of the physical environment (the workplace) and material resources available to the individual to work with.

Gelabert (2008) asserts that stress is seen as "an emotional reaction occurring in the presence of certain stimuli that usually triggers the body's coping mechanisms to face the new circumstances" (p. 4). Some ways to help deal with any form of stress or stressors in the life of mankind could be found in the magnificent masterpiece compilation of stress related challenges and their

possible management techniques by Kahn (2006) steadily catalogues all sort of stressors and defines and explains their relation to stress. He further provides ways by which each stressor could be controlled. He again suggests alternative information sources to help her readers. Kahn (2006), also emphasis that a simple understanding, that stress can overload a person's physical and mental systems can help man better cope with daily challenges.

Having already established that stress makes different impressions on every individual, it is worth also noting that "no given strategy works for everybody", neither is there a "limit to the number of remedies" for dealing with stress (Cope, 2003, p.57; Scott, 2010, p.12). We should also note that the time it takes for the body to normalize varies from person to person (Akosa, 2018). According to the writer, individuals who have the tendency to control their emotions tend to control stress better within shorter periods. Murphy speaks of three major categories in relation to stress intervention. These the writer indicated as, primary prevention – which has to do with "reducing the stressor at the source" secondary prevention – which deals with "reducing the severity of the symptoms prior to their resulting in serious problems"; and tertiary prevention – which focuses on "treatment through counselling" (Cope, 2003, p.57).

Gelabert (2008), provides a list of scientific and natural treatments to help control these incidences. These preventive as well as management techniques include hydrotherapy, phytotherapy, dietotherapy, psychotherapy, heliotherapy, physiotherapy, and medication. Having provided a list of existing phobias, Willis (2007) tries to suggest phobic chemistry and phobic therapy to overcome stress that arises because of phobias.

Mental Health Foundation (2018) provide the following as ways to control and manage stress in an individual's daily lives. The report confirms that knowing one's limits, reviewing one's lifestyle, building social bonds with family and friends, adopting a healthy eating habit (diet), being cautious of stress-related behaviour (drinking, smoking), exercising one's body, making time to rest, practising mindful mediation, getting some rest (sleep) and not being too hard on oneself all help reduce the impacts of stress in mankind.

Some non-orthodox techniques such as art therapy could also be used. Hass-Cohen and Carr (2008) note of the fact that introducing a relaxation technique tends to interrupt the stress cycle. In their own words "therapeutic art interventions can activate relaxation, a parasympathetic response". According to the writers, using therapy as well as "stimulating relaxation responses" promotes focused attention, (p.115).

Pearlin observes that individuals' coping strategies are primarily social in nature (Cordon,1997). The writer continues to explain that the manner in which people attempt to avoid or resolve stressful situations, the cognitive strategies that they use to reduce threat and the techniques for managing tensions are largely learned from the groups to which they belong. The writer further contends that although the coping strategies used by individuals are often distinct and unique, coping dispositions are to a large extent, acquired from the social environment. Curl and Forks (2008) upon conducting a research on stress reduction and the individuals thought patterns – positive or negative – prove that until people give way to consciously creating a personally 'positive situation' in relation to stress, it is impossible to have the full release of stress from one's system. Ackummey (2003) proposes that taking the client through a session of cognitive restructuring is the best solution: since in most cases, the client under such a stressful condition may not think right or be confused under a little pressure or cluster of activities. This practice goes a long way to help relax the thinking as well as the decision making process, both of which are processes that tend to slow the brain down and result in some form of psychological stress.

Dieticians recommend a balanced diet and a well-planned schedule for eating as a way to improve the individual's health and keep the mind focused. Ackummey (2003) explains the fact that when stress is prolonged over a period the body loses essential nutrient. Thus, "body protein, drawn chiefly from the muscles, will be used to provide energy...blood levels of potassium will fall" (p.133). This simply means that the body at the point of stress, overuses the nutrients and hereby, causes the body to lose and use up stored nutrients. When the individual checks his or her diet psychological stress such as, loss of intellectual capacity, irritability, memory lapse, and problems with concentration, insomnia, anxiety, sleep disturbances and depression may not occur. On the other hand, physiological stress such as experiencing strain in the body, headache and change in behaviour can also be eliminated with the balance of essential body nutrients when stressed.

In order not to put more pressure on the rate of one's heart, an exercise that most psychologists suggest is that of controlling the breath, that is, inhaling and exhaling in a slow and deep manner. This act would slow down the rate at which the heart would pump blood during such stressful times and reduce the rate at which one can be affected by heart problems. Experts say the reaction of the stress on the breathing system is that "when a large dose of stress attacks,

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breathing becomes more rapid... once the stressful time is past, breathing returns to its normal rate" (Melgosa, 2006, p.133). This implies that the pattern of breathing changes when the individual is under stress, and this can affect one's heartbeat leading to hypertension.

Workplace stress could be prevented if employer and employees could settle down and point out ways by which both parties could safeguard their individual interests (work and wellbeing of workers), in order to secure both the life of the worker and the work that ought to be completed. Rulli (2014), points out a similar agreement on work-related stress and objective indicator of stress such as the European Framework Agreement, the Italian Framework Agreement and the Interregional Technical Coordination for the prevention in the workplace.

Most stressors found in the home and at work lessen the satisfaction obtained from work and also reduce performance whiles at work. To help resolve the great impact these stressors have on work, Michie (2002) mentions certain classifications to approach and help combat occupational stress.

> Individual Approach: - this is done through 'training' and one-onone psychology service (counselling). This is aimed at getting the individual to change skills and resources and make the individual change their situation.

> 2. Organizational Approach: - this has to do with preventing and managing stress at the workplace. Since most stressors can be found at the workplace, employers should help by implementing healthy measures to secure worker's and workers' output.

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Michie continues to explain that in training oneself, the individual gains knowledge to prevent stress, by first creating an awareness of stress symptoms, gaining interruptions on behaviour pattern at early stages of stress, developing action plan control measure to manage stress, providing skills of active coping, relaxing, and developing a lifestyle that creates a buffer against stress.

To help relieve work-stress, the individual according to writers such as Cope, (2003); Melgosa, 2006; Willis, 2007; Segal, Smith, Robinson and Segal, (2018); could apply the following measures.

- i. Reach out to others by either turn to co-workers for support engaging with colleagues as a way of freeing oneself from the negative energy within; lean on one's friends and family members
 by increasing social contact for positive impact; or build new satisfying friendships make new friend with common interest to ease one's tension.
- Support one's health with exercise and nutrition, by applying relaxation techniques, and attending physical health programmes or training.
- iii. Not skipping sleep and having enough rest during the day and moreso at night.
- Biofeedback learning to modify inappropriate responses as a result of information received from heart rate, blood pressure or electroencephalogram (EEG) scan.
- v. Upgrading self through training in specific areas of job task.
- vi. Prioritising and organizing one's life and goals to attain them accordingly.

vii. Breaking bad habits, such as resisting perfectionism, changing negative thoughts, not trying to control the uncontrollable, being humorous when tensed and cleaning up one's act.

From the above list, it is worth noting that it is only when an individual masters the act of dealing with the experience or masters a problem situation

that coping is said to have taken place (Cope, 2003).

Advantages and disadvantages of stress

Willis (2007) indicates that stress is both a burden and a challenge that sparks up one's focus and ability to participate, overcome, and accomplish goals or projects of life, thus, it is advantageous for an optimal level of health and achievement, as it also helps mankind cope with emergency situations. Eustress as it is normally called, takes place in situations such as being promoted, getting married, winning the lottery and other exciting yet 'hard to control' situations.

Stress, on the other hand, can tend to break down the human system, not allowing the individual to successfully accomplish a set target. It takes the individual off the track, creating an avenue that makes the individual have less control over a given situation. This form of stress is possible when considering distress, which normally takes place in situations such as failing in an examination, relationship break-ups, death of a loved one, etc.. If stress exceeds a certain limit, it in due course, depletes the body's ability to adopt and vital organs wear out leading to varied sicknesses (Stangor & Walinga, 2014). This suggests that though some amount of stress is needed to keep the individual going, when in excess, it can depreciate the body and mental coordination.

Art therapy

As a form of exposition to the term art therapy, a review on themes like the history of art therapy, concept of art therapy, types of art therapy, tools and materials, the science of art therapy (art therapy and the mind, art therapy and stress), uses and advantages of art therapy as well as the relevance of art therapy

in counselling was conducted.

History of art therapy

Art therapy an innovative technique and therapy which seems to be catching up with modern health care is said to have started in the mid-20th century. Hinz (2009) states that art therapy is a "unique profession". By this, he explains that the practice was founded on contributions from professionals from a vast range of disciplines. Thus, with the input of persons of varied background, art therapy has become well established. This included professionals in social work, art education, fine art, and psychiatry. He also expresses that fact that some circumstances within that era created a conducive atmosphere for art therapy to flourish. That is, the 'social movement, political struggles and the changing nature of art expression' according to him were contributed to the development of art therapy during the time.

According to Edwards (2004) and Rappaport (2009) before written documentations were made and before the introduction of art as a therapeutic means of dealing with man's physical and psychological mishaps, art was already used as a means of healing way back in prehistory, the indigenous cultures of old. Rappaport (2009) indicates that "this ancient and universal use of art is seen in cave paintings, religious mandalas, iconography, Navajo sand paintings, and the tribal masks, jewellery, and costumes of Africa" (p. 65).

Practices which involved the use of crafted as well as ordinary objects such as stones (natural or engraved), feathers, designed bones, beads, carved wood, armlets, talismans, totems and even tattoos were applied to different manner of ailments for healing and communication (Malchiodi, 2003; Edwards, 2004; Rappaport, 2009). Rappaport (2009) makes it clear that all such practices were then labelled as an uncivilized and of primitive cultures. For Africans, Indians and other culturally inclined communities, it is evident that modernisation seem to have robbed mankind of the very essence of predisposition to art and the power it has on personality. It was just recently that creative art practitioners and artist reintroduced art into mental healthcare to calm patients of any physical and psychological imbalances (Farrelly-Hansen, 2001).

The first documentation of any work in art therapy according to Rappaport (2009) was that which was written by an art historian and psychiatrist named Hans Prinzhorn who studied artworks of mental patients. According to Farrelly-Hansen (2001) Prinzhorn collected more than 5000 works of art from about 450 mentally ill patients from Central Europe. After several observation and analysis, he was said to have published a book titled '*The Artistry of the Mentally Ill*'. This book provided "insight into the art and psyche of those with mental illness, connecting those shut away with society, and carrying the unique aesthetics of their work into the modern art world" (Rappaport, 2009). MacGregor as cited in Malchiodi (2003), indicates that "this work challenged both psychiatric and fine arts professionals to reconsider their notions of mental illness and art", (p. 6). Prinzhorn's book (The Artistry of the Mentally Ill) is said to have been translated from the German: *'Bildnerei Der Geisteskranken'*. 'Bildnerei' according to Brockdorf who translated the original book to English

in 1972, said the word meant 'to form' or 'form making', but rendered it as 'artistry' since the word *art* was non-existent (Brown 2006). This, Brown explains by quoting Gombrich in his writing on '*History of Art*'. Here Gombrich emphasizes that "there is really no such thing as Art" yet states that there are artists.

Different accounts prove that this technique might have started simultaneously at different countries, by different people for different reasons at different levels of expertise (Rubin, 2010). According to Edwards (2004) the four most recognised writers that promoted art therapy include Margaret Naumburg, Edith Kramer, Hanna Kwiatkowska and Elinor Ulman. Major contributing pioneers in art therapy that are well acclaimed in literature include Adrian Hill, Margaret Naumburg, Edith Kramer, and Florence Cane (Hinz, 2009). The writer continues to indicate that each and every one of the pioneer art therapists "brought to the field a distinct understanding of the effects of art media properties and task instruments on the creative therapeutic process" (p.

22).

In 1942, Adrian Keith Graham Hill, a British artist is said to have discovered some health benefits in applying artworks such as drawing and painting on his sick bed during a tuberculosis treatment whiles in a sanatorium (Rubin, 2010). (Hill in Hinz, 2009) "described how he single-handedly designed, implemented and advertised a new art therapy program at a sanatorium turned rehabilitation hospital during the Second World War" (p. 22). She further describes the components of the program stating that it includes art appreciation, art instruction, and free art expression. These according to the

writer were "successfully used art to relieve boredom and despair, and to bring meaning back into the lives of gravely ill and injured patients.

The account of Margaret Naumburg's contribution to art therapy, sprung up from her work experience in a mental hospital before and after establishing the Walden School and her two personal psychoanalyses treatments (Hinz, 2009). She was known as the "Mother of Art Therapy" since she promoted art therapy in all her works as an artist, educator, psychologist and author. It is worth mentioning that in her practice, Naumburg applied theories from both Sigmund Freud and Carl Jung as a guide to art therapy since she was devoted to a psychoanalytic approach the art therapy. Hinz (2009) explains that in her practice, she believed that "an individual's most essential thoughts and feelings are derived from the unconscious" (p. 24). By this, she stated emphatically that unconscious content achieved its most complete expression in images rather than in words (Rubin, 2010). Rubin (2010) continues to explain that Naumburg's focus was mainly on the outcomes and symbolic representation, "a means of both diagnosis and therapy, requiring verbalization and insight as well as art expression" (p.58). To her, words were not the primary modality in therapy, but rather the springboard into a verbal examination of the unconscious. Thus, she is said to have believed "that the free art expression of children represented a symbolic form of speech that was basic to all education" and also that there was a "release of the unconscious mind through the use of spontaneous art expression" (Packard, 1980). The writer continues to explain that in the years that followed, she arrived at the conclusion that "this form of spontaneous art expression was also basic to psychotherapeutic treatment".

Like Hill who enthusiastically campaigned for art therapy in Britain, Naumburg is said to have also led the crusade in promoting it in the United States. Rubin (2010) speaks of her as a "tireless ambassador for art therapy throughout her life", who lectured "far and wide in order to acquaint other professionals with this new field" (p.59). Edwards (2004) explains that Hill in advocating for art therapy, saw 'art as therapy' whiles Naumberg's stood by the position that it could be described as 'art in therapy'.

Edith Kramer is another notable woman who played a big role in promoting art therapy. She was an Australian social realist painter and educationist with an art education background, who mostly applied art therapy in therapeutic schools (Rappaport, 2009; Niemi, 2018). She is said to have fled Prague before the second world war. Before then, she had been introduced to the Lowenfleld perception of art education and some level of rich knowledge of psychoanalytic perspective. Rubin (2010) explains that her exposure to the value of applying art in treating refugee children made it possible for her to fit in perfectly as a therapist into Wiltwyck, a residential school for disturbed children in New York. Her primary focus in the practice of creative art was more on the 'art of creating art as a healing act'. She understood the fact that when an individual was given the freedom of expression with regards to art materials, they tend to represent the persons image or true nature (thought, feelings, or projections). Unlike Naumburg who focused mainly on the power or outcomes and symbolic representation in any given art therapy work, Kramer focused on "a way of integrating conflicting feelings and impulses in an aesthetically satisfying form, helping the ego to synthesize via the creative process itself" (p.58) and not necessarily through symbolism in words (Rubin, 2010).

According to Hinz (2009) Kramer believes that creating a creative atmosphere is paramount for creating art, something she believes was the responsibility of the therapist.

Florence Cane who is Margaret Naumburg's sibling, though was acknowledged as an art therapist is said to have not seen herself as such (Hinz, 2009). She was an artist and teacher. Cane wrote a book on 'Artist in each of us' explaining her experiences as an art teacher whiles at her sister's' school. In her book, she expresses her belief in the fact that "human beings perceive the world and process information from it through three main functions: movement, emotion, and thought" (p.22). This could be linked to the affective, kinaesthetic, and cognitive aspects of human life. The writer continues to quote from Cane's book by stating that Cane explains that the "art might be a way of integrating all three functions, and that if all three were used, the child would be permitted to glimpse the fourth dimension" which is a 'spiritual awakening' (p.22). Like Naumburg's, she was influenced by Jung analytic approach (Rubin, 2010, p.58). Most of her works depicted her as a true therapist since she used the three domains to help individuals to balance their character – behavioural function, emotions, and academics (Hinz, 2009).

Elinor Ulman is another contributor in the field of art therapy. In the practice of art therapy, Elinor Ulman held the believe that "the creative process itself was the prevailing curative factor of the nascent discipline that she attempted to define" (Hinz, 2009, p.26). Unlike Naumburg and Cane, the writer draws attention to the fact that Ulman didn't believe in the power of symbolism – interpretation of spoken words – of the work of art produced. In her view, such interpretation was not necessary for clients to gain insight from their

artistic actions, but rather that sublimation through the creative process was key to art therapy. This view was said to be affiliated to the fact that she was an artist and believed in the power of artistic creation to help the artist understand him/herself and the world around them – bring order out of chaos, aligning the inner state and outer representation of it – in the work produced. Ulman was said to be the first person to publish the very first book on art therapy, "The Bulletin of Art Therapy". Ulman, put together essays on art therapy to write this book. Malchiodi (2003) states emphatically that the most outstanding contribution Ulman made to the field of art therapy was seen in her writing and editing of publication in art therapy.

Other contributors to art therapy include, Hanna Kwaitkowska, Janie Rhyne, Viktor Lowenfeld, Mardi Horowitz, Mala Betensky, Don Jones and Robert Ault, Mary Huntoon, Vija Lusebrink and Sandra Kagin (currently Sandra Graves-Alcorn). Kwaitkowska's contribution was in the field of family art therapy; Mala Betensky is said to pioneered the phenomenological theory of art expression; Vija Lusebrink and Sandra Kagin worked with acutely psychotic and developmentally challenged individuals; Mardi Horowitz's view projected the relationship that artworks or images have with cognition; Janie Rhyne who came from the Gestalt background believed that people gain awareness of their immediate experience from concentrating on sensorimotor experience; Don Jones who was an artist was said to be a conscientious objector, have worked in a psychiatric hospital during World War II together with one Robert Ault who steered the committee that formed the American Art Therapy Association; whiles Lowenfeld is said to have been an influential art educator who aided the process to define the stages of educational graphic development and clarified

the relationships among intelligence, social abilities, and creative growth (Kaplan, 2000; Malchiodi, 2003; Hinz, 2009; Rappaport, 2009; Rubin, 2010).

Despite the similarities that lie within the finding of most pioneers of art therapy, Malchiodi (2003) makes it clear that art therapists often tend to improvise on the protocol of standardized assessments to suit a particular clinical purpose. Aside the developments that have gone on over the years, the researcher believes the above point raised by Malchiodi has highly contributed to the evolution of art therapy over the years.

According to GoodTherapy.com (2016) since art therapy was not part of educational programmes during those days, all forms of art therapy treatments were used by caregivers from varied disciplines who had adopted the practice. Art therapy works were supervised by psychiatrists, psychologists, or other mental health care professionals since therapists looked up to psychology and embraced its empirical approach for their research (Malchiodi, 2003; Hinz, 2009). This was to help give the early art therapist a grounded backbone to wholly execute therapy to their clients. According to Kaplan (2000) attainment for knowledge in psychology and behavioural science was of great essence to all practitioners.

Concepts of art therapy

Before delving into the concepts behind the art therapy technique, let us take a look at the components of the words that make up this peculiar method. Understanding each word brings to light the true reflection and essence it bears in this therapeutic procedure, art, therapy and art therapy.

Art: - Amenowode (2001a) defines art as "the expression of mankind's inner feelings in visual form". According to Malchiodi (2003) and Rubin (2005)

art-making is an innate human tendency. Rubin (2005) claims that people create art as a means to externalise ideas. This, he explains as a way to "stimulate new thoughts and feeling". A typical example is when a teacher speaks of something and goes further to use a story (scenario) to help create better understanding of the subject of discussion. This is what Arnhein termed as "visual thinking" (Arnhein, 1969). Thus, art can be seen through the visual art and oral art forms. As the saying goes "a *picture is worth a thousand words*". The fact that artworks in some ways, reflect the psychic experience of the artist, is a fundamental concept in art therapy (Malchiodi, 2003).

Therapy: - The word therapy is explained as "any form of treatment for a disorder by a method other than surgery" (Coleman, 2006). The writer explains the etymology of therapy as a Greek word *'therapeuein'* which is translated as 'to heal' or 'take care of'. According to Engler (2006) it is "the practical application of psychology in ways that will assist individuals". Though therapy could be done in a hospital setting, unlike most medical procedures, therapy can be in different settings by a wide range of specialists.

Art therapy: - The Oxford Dictionary of Psychology defines art therapy as, "a form of psychotherapy in which clients or patients are encouraged to express their feelings and their inner conflicts through art" (Coleman, 2006). According to Moon, art therapy can be described as a kind of psychological therapy that uses art as a tool for facilitating therapeutic growth (Curl & Forks, 2008). It is also said to be "a form of psychotherapy that uses art media as a way for the client to express their feelings and thoughts" (British Association of Art Therapists, 2010). Rappaport (2009) indicates that the practice "incorporates visual art, creative process and psychotherapy to enhance wellbeing",

(emotionally, cognitively, physically and spiritually). The American Art Therapy Association (2017) on the other hand, defines art therapy as "an integrative mental health and human service profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship".

Niemi (2018) asserts that "some therapists see it as a tool that assists individuals in expressing their thoughts, feelings, beliefs, problems, and world views". Searle and Streng (2001) claim that due to its communicative nature it helps to 'discover and strengthen' the sense of self. By this, the writers explain further that it presents the opportunity to get in touch with self through an external medium.

The value of art therapy was promoted in the 1940's by different workers who engaged in the practice. This included professionals in mental healthcare, psychologist, counsellors, social workers, and psychiatrist who made great contribution to the documentation of facts about the then novel technique (Kaplan, 2000; Edwards, 2004).

Drachnik (1976) in an article that drew attention to the relationship that lied between art therapy and art education, quotes Robert Ault of the Menninger Clinic who made a link between education and art therapy. Ault stated that art therapy could be grouped into four main categories (p.16). These categories as he explained, include:

- 1) Analytic therapy which uses the psychoanalytical model.
- 2) Functional art therapy where therapy concern is with mental retardation, physical and organic disorders.

- Gestalt art therapy the use of art materials to produce personal growth, education, and awareness.
- Psycho-educational art therapy which involves an interpersonal relationship and a learning process within the structure of the activity.

Rappaport (2009) on the other hand, explains that art therapy is a combination of approaches which include psychodynamic (Freud and Jung), humanistic (gestalt, existentialism, person-centred, Adlerian, and phenomenological), cognitive-behavioural therapy, transpersonal, developmental therapy, narrative, behavioural psychology and marriage and family therapy as well as many others.

Art therapy over the years, has been explained to be an evolving practice and has hereby, been termed differently by different theorist who think the initial name rules out the purpose that is currently seen in the varied range of art expressions, settings and purposes which it serves. Names like creative art therapy and expressive art therapy have been used as a more suitable expression of what the practice stands for (Pamelia, 2015). Writers like Kapitan, Litell and Torres, 2011; Kapitan, 2012 and Nolan, 2013 all agree that the use and the mode of training in art therapy have also reformed over the past few years.

According to Amenowode (2001a) art therapy is "used as both a diagnostic tool and as an intervention modality". Thus, it serves as a means of assessment and in other cases, as an intervention which tends to address issues such as "self-esteem, anxiety, depression, trauma, post-traumatic stress, developmental delays, psychosis, cognitive impairment, neurological problems, addiction, eating disorders, anger management, conflict resolution and other

mental health concerns" (Horgan, 2002; Rappaport, 2009; Rubin, 2010). Engaging in art therapy according to Buchalter (2015), "allows the client the opportunity to communicate thoughts, feelings, concerns, problems, wishes, hopes, dreams, and desires in a relatively non-threatening manner" (p.15). According to Good Therapy.com (2016) over the years, art therapy has been used as a means of self-expression, group interaction, diagnosis and conflict resolution.

According to Malchiodi (2003) as well as Hass-Cohen and Carr (2008) art therapy is one of the best ways to get a person with a problem in tune with his or her inner being. Most often, the application of creative art therapy has been conducted in aiding people enhance health issues though other social issues have also been equally dealt with using this method. Health complications including trauma, stress, eating disorders, grief, emotional impairment, and other socio-cognitive difficulties have been treated using this alternative method of relief (Amenowode, 2001; Rubin, 2005; Levine & Levine, 2011). Literature reviewed proved that research works done on art therapy in the western world in controlling stress have been conducted on students (Aaron, Rinehart & Ceballos, 2011; Scott, 2017), children (Levy, 2011), workers (Visnola, Sprūdža, Bake & Pike, 2010), and cancer patients (Akila, 2012), all of which have proven successful in this pursuit.

Though in some cases art therapy can be said to be an innovative technique in dealing with physical, emotional as well as psychological health challenges, not all people easily accept it as an open-minded technique they would like to approach or engage in. This is mostly due to inhibition and fear or some sort of intimidation to doing artwork of any kind. Inhibition according to Malchiodi (2003) and Edwards (2004) could be as a result of past insecure experiences in art (therapy) or a sense of insufficiency. Edwards (2004) points out the fact that inhibition to creative art forms tends to negatively affect the production of creative artworks as well as the positive impact it should have on the individual going through art therapy. This makes it clear that to have a successful art therapy session, the therapist must alleviate all possible physical and psychological impediments to aid the client work with much ease.

To help remedy such an occurrence, Rubin (2005) in the book '*Artful therapy*' indicates that "how you invite people is absolutely critical to your success in helping them to become engaged in the creative process" (p.42). The writer explains that an introduction to the process helps to give reason for clients to willingly engage and explore the skill, especially when they have the power to choose. In other words, aside a good introduction to the phenomenon, allowing the individual client to 'discover' their 'own relationship to the art form', would aid in getting the client accustomed to the technique (Jones, 2005). Buchalter, also speaks of the use of warmups. The writer believes that these five to ten minutes exercise helps the client increase their self-esteem, settle them (reduce stress and anxiety) down and also energise them to create art. Another advantage the writer discusses is the fact that it helps create an understanding to the client that "it does not matter how one draws" (Buchalter, 2009; 2017).

The application of this method of therapy is mostly seen in institution as such as mental health centres, inpatient hospitals, individual and group therapy sessions, day treatment programs, psychotherapy session, schools, hospitals (physical and mental), aged homes, nursing homes, prisons, counselling/ intervention/ medical facilities, shelters, rehabilitation centres and studio

settings to help their clienteles (Killick & Schaverien, 2002; Waller, 2002; Rubin, 2005; Warren, 2008; Karkou, 2010). Information gathered from literature on art therapy techniques proves that art therapy can be performed with different approaches under a wide range of settings. Depending on a client or patient's condition, the therapist can provide this service to an individual, group or in family therapy settings (Liebmann, 2004). Personnel's who can apply art therapy in their line of duty include, school counsellors/therapists, psychiatry workers, clinical psychologists, and some specialized physicians (Killick & Schaverien, 2002; Curl & Forks, 2008; Karkou, 2010).

Analysis of this technique as earlier stated in the views of art therapy historic pioneers, proves that artworks can be both evaluated through the perspective of the artist (art therapist) or interpretation of the client who produced the work, as well as the therapist. With reference to the former, it is explained that having the client directs the interpretation of their own work of art, is one effective key feature in the process of art therapy analysis (Gale Encyclopaedia of Nursing and Allied Health, 2006; Case, 2007). In the case of the latter were the art therapist aids in the interpretation, Betts, (2005) claims this method of assessment is used as a means of providing diagnostic information for onward treatment. Buchalter (2015) explains careful discussions of the artwork allows the individual clients to "observe, analyse, and relate to representations and figures illustrated", while for groups settings, "it provides for group interaction and feedback" from members of the group therapy session (p.16). Niemi (2018) explains that the relationship between the client and therapist is "simplified or complicated" based on the artwork produced. Thus, the artistic work produced leads the way into the interpretation

of the art and the underlining emotions and rational behind them, hereby enabling a smooth or difficult discussion of the client's condition.

Searle and Streng (2001) project the fact that both the art therapy process (creative process) and the product of art therapy (creative product) happen to possess a therapeutic significance. The true effects of art therapy and the various aspects of the technique which tend to help in soothing pain or stress (physical, psychological, and emotional) is a subject that has been thoroughly discussed by Lynn Kapitan. In her editorial on *Does art therapy work? Identifying the active ingredients of art therapy efficacy*, the writer evaluated works on art therapy and its efficiency (Kapitan, 2012). The editorial also brings to light several ways through which stress is reduced when creative art form is applied. **Types of Art Therapy**

As stated earlier, the skill of art is an innate tendency in all men. The practice of art can be applied and be seen in different approaches with a wide range of tools and materials. In art therapy also, an individual can find a host of skill and resources that help deal with client of different physical, psychological, and emotional challenges. Having defined art therapy, the American art therapy association continues to point out some ways in which art therapy can be applied. These included drawing, painting, sculpting, colouring, sewing, collaging, and other forms of visual art (American art therapy association, 2017). Research such as Ottarsdottir (2005); Jones (2007); Lyshak-Stelzer, Singer, John and Chemtob (2007); Curl and Forks (2008) all proved that different forms of art therapy – drama, story-making, painting, picture making, clay moulding, etc – could significantly reduce stress in individuals of different life stages.

Tools and materials

Buchalter (2015) explains that "creative expression through art provides the individual with the freedom to represent his inner and outer world in any way he chooses", (p.15). Some tools and materials that can be used for art therapy include assorted paper, colour (pastel, crayon, water colour, paints, markers, chalk, coloured pencil, poster colour, acrylics, etc.), pen, pencils and eraser, card board, wood, knifes, old pictures, magazines, glue, scraps of different kinds, pliers, paint brushes, foam, stapler, wood scrapes/shavings, sand, puppets, toys, clay, scissors, costumes, musical instruments, needles, easel, assorted fabric, beads, computer programmes, and many other materials that could be used to create different art forms (Kaplan, 2000; Edwards, 2004; Rubin, 2005; Hass-Cohen & Carr, 2008; Buchalter, 2009 & 2015; Karkou, 2010).

Rubin (2005) explains that due to the analytic component of art therapy, tools and materials bought ought to be of good quality for a lasting effect. Proper storage and cleaning of tools and material are also very important measures therapists should engage in as well as train their clients to adopt to (Karkou, 2010). Rubin (2005) and Avrahami (2006), explain that making tools and materials visible and reachable to clients help in promoting client's autonomy as well as their independence in decision making. The writers continue to clarify that the visibility of materials being used prevents interference of the client's expression and also enables clients "create connections between memory and feelings". Thus, the role of 'personal space' is very necessary in the application of art therapy (Haeyen, 2018).

Although some specific art therapy forms have been used over the years to treat specific health problems, the client is at liberty to opt for art forms that seem appealing and might stand out as the best way for them to express themselves (Buchalter, 2009). The writer also explains that art therapy could be done using more than one form of art techniques. This, she says provides "a rich environment for creative expression and sharing of thoughts, ideas and feelings". Some skills or art forms that could be used in therapy include painting, drawing, colour, photography, digital art, or a variety of other types of visual art expression, music, dance, textiles, drama, play, collage or mosaic, sculpture, toys, clay work, woodwork, and any other creative measure could also be applied as creative techniques in art therapy (Kaplan, 2000; Malchiodi, 2003; Edwards, 2004; Buchalter, 2009).

The science of art therapy

Though art and science in so many ways have been seen as two themes of different contexts, the practice of art therapy and medicine seem to provide a link between these two fields. According to Niemi (2018) this disassociation seems to have "favoured a more art-based stance in its philosophy and practice", (p.10). Kaplan (2000) in his book 'Art, science and art therapy' compared the two subjects to help his readers to understand the relationship between art and science. The writer stated that both fields are "involved in specialized processes and products", which he explains as what clearly differentiates them. He goes on to indicate that further observation tends to prove some sort of congruence between art and science. According to Kaplan, the major resemblance between them would be that they both rely on creativity and that there is a great "desire for order and meaning", which he sees as the "underlying motive for both

creating art and pursuing science" (p.14). One remarkable point he made about the two (2) subjects was that the "*science* of art and the *art* of science are conceivable" (p. 15). By this, he meant that art and science do have a connect with each other through the application of one onto the other.

In the light of modernity, one could say that the introduction of new as well as modified practices in the art (therapy) and health field has made it clear that art and science both share a tendency of promoting good health emotionally, physically and psychologically. Jones (2005) makes it clear that the introduction of the art into hospitals and the tremendous impact it has made on patients has contributed to the positive impact art has made in the field of mental health. Kinney and Mueller (2018) make it clear that art has in many ways integrated into the medical field as an adjustive support for healing. Thus, the two distinct fields have united to bring 'new life' to the treatment of ailments of varied conditions.

Kinney and Mueller (2018) state that "Art as healing is certainly not a new concept". The writers explain this by indicating that the practice of using art as a therapeutic measure has been "employed by various cultures the world over". The history of art therapy as well as some historic information in the field of visual art makes it clear that in the prehistoric era, artefacts of different forms were used as a means of bringing healing to people (Rubin, 2005). In 1993, Cathy Malchiodi is said to have coined the term 'Medical art therapy' in quest to explain wonders in which the integration of art and science were making in the health of its users. Her book which bears the same name brought together art therapist who had practically applied the technique to help some adults in dealing with specific ailments (Malchiodi, 1999). Malchiodi (2003) explains

that the study of or the knowledge of science is key to explaining and understanding the way art therapy works to bring a therapeutic effect on its clients.

Art therapy and the mind

The history of art therapy traces its foundation to Fraud and Jung's psychotherapy and psychoanalytic theories, with much reference being made to the way the unconscious works to interpret and bring meaning to the things perceived by man. Malchiodi (2003) explains that there is a need for therapist to understand the function of the brain to gain greater knowledge of how therapy influences the clients 'emotions, cognition and behaviour'. This would help them understand the functions and influences of the technique which is making the client free from any threat on their health.

According to Kinney and Mueller (2018), research works done over the years have proven the impact of expressive and creative art theories on the scientific connection between the mind and the body's response. Tinnin as cited in Malchiodi (2003), states that "art therapy facilitates healing in a similar way to the placebo effect" (p.22). By this, the writer is explained to have indicated that art therapy "uses mimicry, an instinctive, preverbal function of the brain that is basic to self-soothing". Kaplan (2000), quotes Arnheim who proposed that "Thinking calls for images, and images contain thought. Therefore, the visual arts are a home ground of visual thinking" (p.70). All these above perspectives prove that art (art therapy) has a close relationship with cognition which in turns, informs the healing process of various conditions.

Kaplan (2000) explains that research has proven that "neuroscience offer indications of the contributions that visual art in particular can make to our

well-being". The writer explains that the 'visual arts expression' tends to "facilitate language development" (p.62). This facilitation, though is a scientific process, was born through an artistic technique. Kaplan in linking this technique to the science of the mind, continues to point out that art "stimulates feelings of pleasure and increased self-esteem that arises from biological natures" and also "represent an island of successful functioning in a sea of mental deficits". Malchiodi (2003) proposes that neuroscience has provided the bedrock to the understanding of how the brain functions as well as how emotions are translated into artwork and vice versa to bring relief to the individual suffering from any health defect. Cattanach (1999), also asserts that "the arts call upon the creative and healthy aspects of the self,". This suggests that art in itself offers some form of sanity within an individual – a state of mental soundness, mental balance or lucidity – the very essence of applying art as a therapeutic technique on clients.

Hass-Cohen and Carr (2008), assert that in art therapy, the body-mind connection is seen clearly in the work of art. They explain further that artworks produced, tend to be "expression of how the self organizes internally" (p.21). Hinz (2009) also talks of the connection of art and science when he explains the 'kinaesthetic-bodily sense' and its connection to expressive therapies. She states emphatically that the "part of the connection between motor associations and somatosensory associations take place in the limbic system or old brain" while others go through "direct transcortical transmission between the two cortices" (p.39). This suggests therefore that while an individual is taken through art therapy (or any other expressive therapy for that matter), actions taken as a result of expressions of emotions, thought etc., tend to send signals to brain for onward evaluation. Malchiodi (1999) confirms this by indicating that patient's

artworks tend to "provide a wealth of diagnostic material unable or unwilling to be expressed through words or other art forms" (p.10), while Cattanach (1999) also indicates that art therapists have hope in the fact that 'their interventions' help to cause a change in the mental health of their clients.

Robert Grimmond-Thompson, a Ghanaian artist with a deep knowledge and understanding of psychology and neuroscience introduced in 2018, a concept termed emotional surgery – similar to the art therapy technique. According to Akosa (2018) colour and abstract object are arranged artistically to help 'speak through the eyes to the brain' to reassure the mind create a calming effect. This self-induced hypnotic technique is said to be used to stabilise clients emotions before surgery. Hass-Cohen and Carr (2008) create an awareness that Psychoneuroimmunology (PNI) is the field of science that helps bring meaning to the complexities that lie between chemical and bodily connection that come to play in trying to understand the science of art therapy. Many other writers in the fields of art, science, education, psychology, psychiatry and the health sectors have also elaborated on the link between science and art therapy.

Art therapy and stress

American Art Therapy Association (2017) defines art therapy as "an integrative mental health and human service profession that enriches the lives of individuals, families, and communities through active art-making, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship." This definition draws attention on the fact that art therapy provides some measures that enrich – improve, reduce, and promote – the wellbeing of those who are treated with this technique.

Having earlier indicated the link between art therapy and the function of the mind, sets the tone to discuss issues on how art therapy plays a role in reducing stress. Since art (art therapy) has been explained to have the tendency to work on the brain positively to relieve it of the pain or tension it picks up from any part of the body, the researcher finds it important to delve into the ability for art therapy to reduce stress. This was truly relevant to this study. More light on the relativity between art therapy and stress management has been discussed under the empirical review titled 'art therapy and stress' See page 116.

Stress and the mind

Hass-Cohen and Carr (2008), indicate that in dealing with stressed patients, it is very necessary to help them understand the effect of one's perspective, emotions, and thoughts about the situation. These can negatively regulate immunity if not controlled. Authors like Hass-Cohen (2003); Kaplan (2000); and Lusebrink (2004), throw light on the fact that art therapy serves as an intervention that facilitates "the expression of mind-body connectivity through the remediation of acute and chronic stress" (p.26). In simple words, the role of the art therapist is basically to assist clients to "self-express and promote a sense of 'intra/interpersonal connectivity" during therapy (Hass-Cohen & Carr, 2008). A typical example could be found in a research work on '*artistic tasks outperform non-artistic tasks for stress reduction*' (Abbott, Shanahan, & Neufeld 2013). The study indicated that stressed participants who were taken through artistic activities "yielded significantly greater reduction" in stress as compared to those who were taken through a non-artistic stress reduction technique. The purpose for the study was to prove that art has a

significant influence in reducing stress as compared to other orthodox methods of stress control.

Art forms made from different techniques have been used over the years to relax individuals with various levels of stress. Thorough research has proven that many art therapists have applied visual arts, clay work, paintings, music, dance, psychodrama, journal writing, among others to treat stress related issues (Avrahami, 2006; Alder 2012; Kapitan, 2012; Huet, 2015, Bazargan & Pakdaman, 2016; Wiggins, 2018). It is clear from the write ups that clients were not just relieved of stress through the creation of artworks only, but also through the use of art appreciation or critiquing, which also made significant impact on the stress levels of participants. Avrahami (2006) in his study, realised that art therapy "promotes healing" in clients of different ages and at different stages or levels of stress. Under the empirical review, more light was thrown on the extent to which art therapy relieves individuals from any physical, social, and psychological challenges.

Uses and advantages of art therapy

The purpose of art therapy is similar to any other psychotherapeutic modality that improves or maintains mental health and emotional well-being. As pointed out earlier, "art therapists are trained to recognize the nonverbal symbols and metaphors that are communicated within the creative process, symbols and metaphors which might be difficult to express in words or in other modalities" (Farokhi, 2011, p.2090). It is further explained that the art therapists' evaluation of these symbols and metaphors helps clients understand

themselves as the happen to gain insight and judgement, with a greater level of understanding of their relationship with self and others.

On a medical ground, the Natural Standard Research Collaboration (2007) indicate that art therapy allows the opportunity to exercise the eyes and hands, improve eye-hand coordination and stimulate neurological pathways from the brain to the hands. They go on to explain that research has established that emotional expression has positive benefits for the immune, nervous, and cardiovascular systems. The psychological and physiological benefits attained through art therapy may contribute to improved quality of life and theoretically, to the medical course of illness (Natural Standard Research Collaboration, 2007).

Some benefits and uses of art therapy spelt out by writers including Malchiodi (1999); Kaplan (2000, 2007); Farrelly-Hansen (2001); Lobb & Amendt-Lyon (2003); Liebmann (2004); Rubin (2005); Gale Encyclopaedia of Nursing and Allied Health (2006); Hass-Cohen & Carr (2008); Levy (2011); Buchalter (2015); Hoffmann (2016); and Haeyen (2018) have been listed below:

1. Creates a deeper and better self-knowledge. The production and discussions of artworks help the individual as well as the therapist to gain a higher level of knowledge about the client.

2. It serves as the best means of getting children to express their feelings. Grownups who are said to be regressed (temporarily or permanently) also find this technique as less threatening and a better mode of expression.

3. Having finished a project and made time to discuss the essence (feelings, reason for creation etc.) of the product, it can lead to explorations of important issues that might be deep within the client.

4. Children who have developmental challenges of organic or psychological roots are said to often benefit significantly when therapists

add drawing and other art activities to other conventional methods.

5. Art therapy serves as a means of getting some group of clients to communicate better and in a free-from-tension atmosphere. Thus, it reinforces one's ego. People who have undergone traumatic and abusive circumstances, those who are 'painfully shy' or find it difficult in communicating with words whether the cause is organic, as in aphasia, or psychological, as in elective mutism can all be helped to communicate better through the use of art therapy.

6. Another group of communicators that could be aided with art therapy are those who have problems with verbal communication. Thus, art therapy is said to be used as a 'second language' for persons who are autistic, hearing impaired, or have brain damages of any sort. Elective mutes and deaf-mutes could also communicate only through drawings.

7. This therapeutic measure can be used at any given time during treatment. It could be used either as the main intervention of treatment and could also be introduced at any stage in any given treatment to serve as a supportive alternative to the main treatment.

8. Patients with acute illnesses of psychoses (schizophrenia, depression, bipolar disorder, and serious personality disorders) can be treated with this

intervention. This indicates the benefits art therapy has in the field of mental health.

9. Treatment of ill persons with art therapy holds a high potential of helping to withdraw symptoms from patients. During the therapy, one's ability to imagine freely in art is extremely therapeutic and relieving to

patients. As one writer puts it, "you can do anything you want to in art, unbound by realistic considerations". This is the power art therapy holds in aiding individuals to overcome any sort of physical or psychological imbalances.

10. Other range of issues that can be treated with art therapy include person with:

- Alzheimer's disease
- Eating disorders
- Sexual abuse
- Bedwetting
- Bereaved persons
- Chronic Pain
 - Memory loss
- Self-esteem

Stroke

Cancer

- Substance abuse
- Victims of abuse
- Self-Discovery and Evaluation
- Physical rehabilitation
- Social skills
 - **Conflict and distress**
- Relaxation and stress relief Anger and resentment issues
- Borderline personality disorder
- Multiple personality disorder (known as dissociative identity disorder)
- The technique also helps in understanding deep emotions of clients with or without verbal or written explanations

According to Rubin (2005) art is "often found in assessment because it is quick" and "can be a rich source of diagnostic information" (p.10). The writer asserts that this is what makes the practice of art therapy easy and the widespread application worthwhile. The writer also outlines the following as advantages of applying art in therapy; some things are easy to say when expressed using art; Art accelerates therapy, art is concrete and lasting; Art tends to relieve tension, art reduces self-consciousness; images have magical power, art can overcome treatment impasse; Some things are easier to 'see' in art, art is a natural way to communicate, art enhances integration. All the above outline the vast nature of benefits art therapy provides to its users through its creation and interpretation – as the saying goes 'a picture is worth a thousand words'.

Relevance of art therapy in counselling

Having listed a wide range of benefits the art therapy presents to its users, it is worth providing some positive ways in which art therapy can be made effective in the practice of counselling. Inferences made from the above advantages of art therapy as stated by reviewed literature, could directly provide the underlisted relevance of the therapy to the field of counselling.

- To help the individual client to gain some form of positive self-image and control of their own work – through interpretation, counsellors can apply art therapy to help clients who need to gain a higher selfperception as well as promote their level of self-esteem.
- For clients who have issues with communication especially children, art therapy could be used to help them not just unleash their inner 'speech', but also get them to talk about their thoughts and feelings during the interpretation of artworks.

- 3. After exploring the meaning of artworks, the counsellor gains greater insight into other important issues that might silently affect the client.
- 4. The counsellor can communicate better with the aged through this selfexpressive means, since it is said to be less threatening.
- 5. Since art therapy has the ability to help individuals communicate in a
 - free-from-tension atmosphere, the counsellor can apply it as a warmup technique to help reinforce client's ego at the beginning of the counselling interaction.
- For better communication, the counsellor could apply this technique to persons who are autistic, hearing impaired, or have brain damages of any sort, the elective mutes as well as the deaf-mutes.
- 7. With art therapy, the counsellor has the freedom to apply this technique as and when they deem it appropriate.

Conceptual framework

The conceptual framework seeks to explain the relationship between variables and the resultant effect of the application of creative art therapy on stress. The framework hypothesised to show the interaction between the variables is as follows:

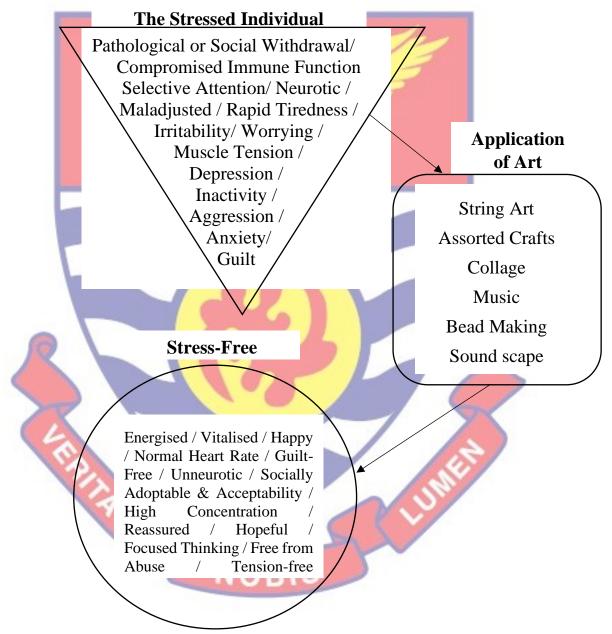


Figure 3 - Gaining Relief from Stress Through the Application of Art

The presentation in Figure 3 explains the relations and meaning of variables of the study. The theoretical framework is based on the relationship between the dependent variable (stress) and its ability to be regulated by creative art therapy which is the independent variable.

In Figure 3, it can be observed that the stress individual goes through are emotional, effective, physical, psychological, and behavioural imbalances such as pathological, social withdrawal, compromised immune function, selective attention, neurotic, maladjusted, rapid tiredness, irritability/ worrying, muscle tension, inactivity, depression, aggression, anxiety, and guilt. Art therapy forms such as string art, mosaic, collage, bead making, crocheting, and music therapy were used on senior staff in the experimental group. This intervention is expected to help reduce stress of the group, hereby, making participants free from stress and becoming energised, vitalised, happy, having normal heart rates, guilt-free, unneurotic, socially adoptable and acceptable, gain higher concentration, be reassured, hopeful, focused when thinking, have tension-free muscles, low sugar levels, and have a balanced immunity.

The use of a triangle to represent stress is to create the awareness of the instabilities faced by individuals during the onset of stress. Art therapy, on the other hand, has been represented with a square. This is simply explained by the reflective nature in which art therapy is said to bring a sense of stability into the individual's life. The reason for the use of a circle in depicting the outcome of art therapy on stress is because it brings wholeness and a sense of total recovery into the individuals' life.

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Empirical Review

A review of studies that have been conducted on stress in relation to the practice of art therapy was examined to help bring to light the significance of the study. Themes under consideration include the following:

a. Studies on Stress and work

i. Occupational stress and stressors
ii. Academic staff stress and coping skills
b. Studies on Art therapy as a healing technique
c. Studies on Art therapy and stress
Studies on stress and work

It is an established fact that some amounts of stress is necessary to get work done. It has also been well established that an overdose of stress can be detrimental to productivity at work.

Occupational stress and stressors

Cope in (2003) conducted a study on 'occupational stress, strain and coping in a professional accounting organisation', The aim of the study was to determining if there are differences between various organisational subgroups regarding variables relating to occupational stress, strain, and coping, as measured by the occupational stress inventory. At the end of the study, the researcher found that with regards to the stress experienced by individuals who participated in the research, differences between their gender, age, race, and their position (seniority) were quite significant. Generally, the result of the revised version of the outcome of the occupational stress, strain and coping proved that some individuals showed 'inimical levels of maladjusted stress and

strain'. Cope made it clear that this was seen in the areas of responsibility, interpersonal, psychological and physical strain.

With gender issues as a central theme, the above research proved that females have a higher score than males in relation to stress. Thus, the females obtained (raw score mean = 25,16; T-score mean = 57,03), while their male counterparts have (raw score mean = 20,04; T-score mean = 50,02). This finding indicates that the female sample "experienced more physical strain symptoms, such as frequently worrying about health issues, anxiety, and disturbances in sleep patterns, especially when under extreme pressure" than the male sample. This was due to the male participants reporting that they often used recreation and rational-cognitive coping more than females, who used self-care more often. There was a "statistically significant correlation between seniority and age, especially for role overload, responsibility and interpersonal strain".

In the above study, there was a statistically significant relationship between age and responsibility. Thus, the "older, more senior employees, compared with their younger, more junior counterparts, reported higher levels of stress relating to responsibility for the performance and well-being of subordinates and colleagues", whereas the "younger, more junior respondents perceived more role ambiguity than older respondents, reporting less direction, structure and understanding of what was required from the job. Younger employees were also said to have a need for clarity about what they are expected to do, what they will be evaluated, how they should be spending their time. Younger employees also experience higher levels of unresolved conflict and interpersonal strain as compared to the older employees. In 2018, a research was conducted on *'Work related stress depression or anxiety statistics in Great Britain, 2018'*, by the Health and Safety Executive. The study used 100,000 workers and was evaluated over a period of three years (2015 to 2018) to appraise work-related stress depression or anxiety in relation to industry grouping, occupational categories, age, and gender as well as workplace size.

The report in discussing issues on the industry groupings states that workers grouped under a broader industry category of public administration and defence (1,960) human health and social work activities (2,080) and Education (2,100), totalling 6,140 cases per 100,000 workers all came out with a statistically significantly higher rate of stress than the average for all industries (1320). In relation to occupational categories, the study came out with prove that professional occupations such as nursing (2,760), teaching (3,020) and welfare workers (4,080) had a statistically significantly higher rate of workrelated stress as compared to worker categorised as skilled traders (600), elementary occupation (780) and process plant and machine operatives (630) who had a statistically significantly lower rate of work-related stress, depression, or anxiety. Other professions who were said to have a high rate of stress, depression and anxiety include those in the legal profession, protective services, and those in customer services. For age and gender, it was made known that only females with the age groups of 25-34 (2,080), 35-44 (2,490) and 45-54 (2,120), totalling 6,690 cases per 100,000 workers had a significantly higher levels of stress, while males within the ages of 16-24, 25-34, and 55+ (being 1, 850 cases per 100,000 workers) had statistically significantly lower stress levels. With regards to gender, 1,950 females per 100,000 workers and 1,370

males of from the same sample exhibited high levels of stress. the findings proves that females had a statistically significantly higher rate of stress than males.

Information from data collected and evaluated indicated that workplace size plays a role in inducing stress on individuals. It was proven here that 1,030 workers in small workplaces settings (fewer than 50 employees) had a statistically significantly lower rate, 1,500 workers in medium workplace settings (50-249 employees) were not significantly different from the rate across all workplaces (1,320 workers), whilst 1,940 workers in large workplaces settings (250+ employees) had statistically significantly higher rates of workrelated stress, depression or anxiety (Health and Safety Executive, 2018). **Academic staff stress and coping skills**

Stress faced by academic staff could be seen in a different light considering the accuracy and demands that the academic structure tends to place on responsibilities to be performed by its workers. Winfield (2000) agrees to the fact that occupational stress is high in the field of teaching and non-teaching staff of universities. This prevalence is said to be in connection to the high demands and level of competence expected of academic staff worldwide.

A cross-sectional study carried out on 406 university health workers, using a General Health Questionnaire (GHQ)-12 and Holmes–Rahe Scale led to analytical results which proved that the population was highly stressed (Mishra, Mehta, Sinha, Shukla, Ahmed, & Kawatra, 2011). The principal stressor affecting the study population according to the researchers were work environment related. Also, the study confirmed a correlation between poor work culture and job dissatisfaction. Winefield, & Jarrett, (2001) in a study on occupational stress on university staff – 2,040 general staff and academic staff – found out that though workers' trait anxiety and job satisfaction were normal, the psychological stress levels of the study sample were of high levels. The research also identified that workers whose responsibility belonged to both the teaching and research duties reported an increased pressure which arises from issues such as funding cuts to universities, a decline in facilities and support for both teaching and research, as well as heavy teaching loads and greater difficulty in securing research funds.

Winefield, Gillespie, Stough, Dua, Hapuarachchi, & Boyd, (2003) conducted a study of nearly 9000 respondents from 17 universities which was focused on occupational stress on Australian university staff. In their study, it was discovered that in relation to stress levels, Academic staff were generally worse off than general staff, and staff in newer universities were worse off than those in older universities. Among other outcomes, the investigators concluded that financial difficulties imposed on Australian universities happen to impose serious consequences for the psychological well-being of their staff, most especially the academic staff.

With the use of An Organisational Stress Screening Tool (ASSET) and a biographical questionnaire, Barkhuizen, & Rothmann (2008) tried to identify some indicator of occupational stress on the academic staff in South African higher education. The researchers sort to investigate the differences between the occupational stress of different demographic groups, as well as determine whether occupational stressors predict ill health and a lack of organisational commitment of academics in higher education institutions. With the use of the

Analysis of variance, the research findings proved that the two stressors that contributed significantly to ill health of academics were overload and work-life balance. Also, it was evident in the study that in comparing normative data, academics reported higher levels of stress-relating to pay and benefits, overload, and work-life balance.

In 2010, Agbemafle conducted a research to assess the extent to which occupational stress is managed by senior members in order to positively influence work performance. This study was done in two (2) different universities in Ghana: University of Cape Coast (UCC) and Kwame Nkrumah University of Science and Technology (KNUST). Findings indicated that respondents were apparently stressed yet did not put in any measure to prevent and control it. It was therefore recommended that respondents be equipped with strategies to help prevent the onset of stress (Agbemafle, 2010).

Recently, a study on job-stress and human resource development was conducted on university workers (senior members, senior staff, and junior staff). The main objective for the research was to study the issue of job-stress and its effect on some human components of human resource development (HRD). The writer in her study, found out that the major source of stress for this group of workers was work demand, work-life conflict and work overload (Ofosuhene, 2018). It was also made clear that, "job stress inversely affects all the components in the HRD. Thus, stress can impede the advancement of the worker and the institution as a whole.

Adjei (2009), comments on the increasing impact that stress is having on workers globally due to institutional changes. The writer in her study on 'work-stress and its management among senior staff' points out that University of Cape Coast (UCC) in the quest to meet the ever-growing demands of academia, had made performance expectations higher. This resulted in senior staff and other workers missing there leave which also was not productive to the individual or the institution. Results from the study proved that the senior staff experienced physiological as well as psychological stress symptoms. The study indicates that this group of workers had a high level of stress, and that "workload, lack of recognition for good effort, and inadequate opportunities for career development were prominent stressors among the respondents".

An evaluation of occupational health and safety practices in UCC proved on many levels that workers (senior members, senior staff, and junior staff) faced some amount of stress. Obese (2010), in assessing results of instruments used for the study pointed out that UCC workers often encountered stress. This was made evident when evaluating result from 'respondents age and certified health problems' and 'number of years by health problems'. The study found out that in both cases, problems like backaches, eye injury, chest pains, repetitive strain, or injury as well as stress were frequently experienced by these workers. This clearly showed that university workers ought to be shielded from any form of negative occupational health hazards to enhance productivity and good health of workers.

In considering the consequences of stress on productivity as outlined by all the above studies, most recommendations from the above listed studies have suggested some common measures to help prevent and control stress from having a negative effect on workers in academia. Suggestions made by the researchers include the use of certified biofeedback practitioners, the need to conduct needs assessment of employees, the need to periodic stress appraisal or health screening for university workers, to make the work environment very friendly and free from hazards, the need to provide necessary resources to perform duties, the provision of stress management interventions, and provision of comprehensive counselling packages,

Studies on art therapy as a healing technique

Literature reviewed, point out a wide range of application of art therapy in connection to physical and psychological ailments. Some of these include the ability to promote self-discovery, social skills, improve internalized problems, memory loss, Alzheimer's disease, borderline personality disorder, reduce anxiety, stress, trauma, cancer, conflict and distress, effects of abuse (verbal and substance), chronic pain, acute stress disorder, among many others.

To evaluate the overall effectiveness of art therapy, Reynolds, Nabors and Quinlan (2000) conducted a comparative case studies survey on seventeen (17) published empirical evidence on the effectiveness of art therapy. These published studies were reviewed to identify the outcome trends associated with the study designs used – single group with no control group, controlled clinical trial, and randomized controlled clinical trial. Some areas of focus in the selected research works on the three (3) designs include, single group with no control group – children of alcoholics and drug users, children with learning disabilities, patients with long-lasting somatic symptoms, educational undeserved adolescence and elementary school students; controlled clinical trial – adult female incest survivors, patients undergoing grieve therapy, sexual abuse survivors and seriously emotionally disturbed children; and randomized controlled clinical trial – adolescent psychiatric inpatients, elementary school students, children with moderate to severe behavioural problems, boys just completing sixth grade and chronic psychiatric patients. The study concluded that it is clear that all the above designs came out with similar results regarding the positive impact art therapy made on participants. The study however observed that conclusions from these studies were rendered differently. This observation was arrived at as a result of some studies that used art therapy as the only intervention while some others combined it with other interventions. In their final words, the study suggested that a "collaborative effort between researchers and art therapists may improve the ability of clinicians in this field to conduct large-scale effectiveness studies assessing the impact of art therapy" (p.212).

Alder (2012) in a research used art therapy to assess if the cognitive ability of older adults (55 and above) would improve. According to the study, both objective and subjective assessments were employed during the pre- and post-test sessions. A t-test and univariate linear regression were used to analyse data. After the test, the t-test identified that the mean score of the experimental group was significantly greater than the control group (t = 1.68; p = .048) while the univariate linear regression indicated that cognitive performance showed statistically significant improvement among the experimental group respondents as compared with the control group (t = 2.44; p = .017). It was therefore concluded that after eight to ten (8-10) sessions of therapy "treatment factors such as session duration and art-therapy-approach were significantly correlated with changes in cognitive performance".

Akila (2012) conducted a study on the effectiveness of art therapy on cancer patients facing stress. The research chose a sample of forty (40) through the convenience sampling method and asked that they complete a 4-point stress

assessment rating scale. Participants were taking through a thirty to forty (30-40) minutes art therapy session for five (5) continuous days. Descriptive and inferential statistics were used in analysis. The study reports that the mean pretest score [48.05 (+6.95)] and post test score of stress [33.75 (+7.25)] suggested there was a highly significant difference (P<0.01) between the pre and post scores. With reference to age, it was also proved that a significant association of (P <0.05) was identified between stress in reference to age at P <0.05 significance. The study therefore came out with the conclusion that art therapy is effective in reducing the stress level of cancer patients facing stress. Recommendations made from the study was that art therapy could be practised in hospitals to "help patients and family members to cope up with stress and to promote stress-free healthy life".

A research was conducted to determine if the use of art therapy was effective in reducing internalized and externalized problems of adolescent girls aged 14 - 18 years (Bazargan & Pakdaman, 2016). A post-test pre-test design was applied on a controlled and experimental group – that went through six (6) painting sessions (based on Art therapy theories and previous studies). To measure internalised and externalised problems, an Achenbach self-assessment form was used. Before conducting the study, participants in the experimental group were asked question on their background in art. This was to help control any confounding effects of having history of artistic activities and interests. Bazargan and Pakdaman (2016) in the study, gave the experimental group fortyfive (45) minutes for the drawing and painting after which they had a fifteen (15) minutes discussion of their work. A mixed analysis of variance (ANOVA) result of the study showed that there was no difference in the control groups

pre-test and post-test means, but the pre-test and post-test scores of the experimental group were significantly lower. By this finding, the study asserted that art therapy could be used as a practical therapeutic method to improve internalized problems. Due to information collected before the intervention, Bazargan and Pakdaman in this study discovered that for art to serve its purpose as a therapeutic technique, the overall ability and interest in the art was a necessary ingredient to make a positive impact for the effectiveness of art therapy.

The Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) community has also had a fair share of art therapy interventions to help them cope with some societal challenges. Wiggins (2018), states that "the inclusion of homosexuality as a psychological disorder has stigmatized homosexuality as being innately wrong and has impacted not only gay and lesbian individuals, but all sexualities and gender variant people in this community", (p.10). According to the write study, definitions given to this group of people such as *mental disorder* (DSM-II), *deviation from normal culture* and *sexual orientation disturbance* (American Psychological Association) among other demeaning discretion have caused both active and passive erasure of members in this community. Due to this feeling of being left out and rejected, researchers have applied art therapy and psychotherapeutic approaches to aid this community to heal from the emotional, physical, and psychological challenges they are facing.

The study conducted was basically in the form of scoping review. A study that synthesised research evident in art therapy and other psychotherapeutic approaches was used in relation to the LGBTQ community. Evidence from the study made use of ten (10) articles and three (3) books on art therapy, and another seventeen (17) articles and two (2) book on psychotherapy used to help the LGBTQ community. In the case of the works done on art therapy and the LGBTQ community, it was evident that researchers applied either the individual or group therapy approach to help respondents. The group approach was used to help them have a unified understanding that they were not facing these challenge alone and therefore should during therapy, be there for each other, whereas the individual setting was used to help them come out of their personal space and confront their personal fears and perception to these challenges. As done in all art therapy sessions, participants in all these studies were offered the freedom to artistically express their inner feeling in relation to the unfair treatment they perceived the world presented them. This was simply to help create within them the sagacity that will enable them to feel safe, validated and accepted.

Though it was evident that studies conducted on art therapy made some positive impact on the LGBTQ community in helping them deal with the emotional, physical and psychological challenges they were facing, Wiggins (2018) suggested that art therapists should create a more friendly environment for these individual considering the general outlook to this group. Also, therapists ought to better equip themselves on with terminologies and symbols that defined this community as well as be self-reflective and cognizant of any biases regarding LGBTQ individuals. According to Wiggins, symbolism and its true meaning, should be of great essence to the art therapist in the interaction with the LGBTQ since different meanings could be identified with this community. One typical example is that of colour symbolism. With the

knowledge that this community identifies with the colours of their rainbow, the art therapist is to note which colour the individual often uses since it tells of which category they belong to within the community. Other symbols such as the equal sign, triangles, and labrys can also arise in their artworks (p.33).

The above research works substantiates the fact that indeed, art therapy could be used to help people facing diverse physical, emotional, and psychological challenges. Thus, there is prove that everyday challenges as well as other unthinkable human predicament could be dealt with through the application of a varied range of art therapy procedures.

Studies on art therapy and stress

According to Segal, Smith, Robinson and Segal (2018), humans experience stress at any given time and that the exposure and impact of stress might be associated to not just the workplace but also to any aspect of life. The writers make it clear that there are many ways by which stress could be reduced in order to regain control over one's job. Art therapy, exercise, yoga, socialization, holiday-making or vacations as well as quality family time has been described as a way of controlling or reducing stress.

Art therapy has in recent years been increasingly used as a technique in managing stress. It is described as "a form of psychotherapy in which clients or patients are encouraged to express their feelings and their inner conflicts through art" (Coleman, 2006). Many studies have proven its efficacy in the treatment of stress and other physical and psychological ailment. One such research is that of Visnola, Sprūdža, Bake and Pike (2010). Their study which was a quantitative quasi-experimental design was on the effectiveness of art therapy on stress and anxiety of employees.

To help identify stress levels of participants, they were given a stress questionnaire, Spielberger examination of anxiety with State-trait Anxiety Inventory Form Y-1 and the high-performance liquid chromatography methods were used. The study employed interview as a measure to assess participants' motivation before the intervention. The interview also measured their sense of achievements after the intervention. The control group was not taken through any intervention all through the study. The experimental group on the other hand, was taken through what the researchers called a "nine themed group sessions of two hours each". Thus, participants were engaged nine (9) times in three (3) different packages – First part: participants were taken through what the researchers called 'themes of recognising and addressing stress' and drawing of a 'Tree of emotions'; Second part: a cognitive behavioural approach to engaging with stress and also spontaneous art-making and storytelling; Third part promoted 'self-awareness, symbolism and positive emotions'. Results from the experiment proved that the experimental group had a mean of (160.2 ± 3.2) which was said to be significantly lower (P < 0.05) than that obtained from the control group (172.7 ± 3.3) (Visnola, Sprūdža, Bake & Pike, 2010, p.87). It was therefore concluded that the application of art therapy on stress and anxiety levels of employees used in the study was effective. The only critique given on this study among other reviews on art therapy research, was that it did not make provision for the control group to have an alternative intervention (Huet, 2015). This according to Huet "affected the validity of comparisons with the experimental group", (p. 74).

Another research conducted in this field in relation to stress was a measure on the extent artistic task as against non-artistic task could reduce

stress. Abbott, Shanahan and Neufeld (2013) used 52 undergraduates to experiment whether activity type (artistic or non-artistic) or coping approach (active or passive) would better deal with stress. By means of a 2 x 2 factorial design, participants were placed in one of the resultant four (4) groups – active artistic, passive artistic, active non-artistic, and passive non-artistic. At the end of the study, it was clear that participants engaged in all artistic activities produced significantly greater stress reduction than corresponding non-artistic activities. This finding according to the researchers supports the "potential therapeutic effectiveness of specifically artistic tasks for stress reduction" (Abbott, Shanahan, & Neufeld, 2013, p.71).

Curl and Forks in 2008 also worked on a study that tried to assess stress reduction as a function of artistic creation and cognitive focus. In their research, thirty (30) participant were involved in a comparative study similar to that of Abbott, Shanahan and Neufeld (2013). This research explored four (4) treatment groups, a negative-focus condition that performed tasks in drawing; a positivefocus condition that involved drawing; a negative-focus condition that were engaged in collage making; and a positive-focus condition that produced a collage. Before the exploration, the heart rates of the sample were tested. Participants were also given a self-report assessment to fill – State-Trait Anxiety Inventory (STAI). For the negative-focus group, participants were asked to think of a negative stressful situation while creating respective artworks (drawing or collage), while participants in the positive-focus were also asked to conceive positive thoughts during the session. Both group (positive and negative-focused groups) were encouraged to maintain the central foci throughout the production of artwork. The heart rates of all participants were

taken after their sessions. This study was done in forty-five (45) minutes. The results of the study indicated that the two groups in the positive-focused demonstrated a significant decrease in stress, whiles those on the negative-focused group came out with a rather increased level of stress (p < .05). It came out that artistic activity had no influence on STAI nor was there an interaction with cognitive focus. Also, results from the heart rate indicated that both the cognitive focus and artistic activity had no effect on heart rates.

Chapter summary

This chapter reviewed theories that related to stress and art therapy. Secondly, a conceptual review was also conducted to throw more light on the stress phenomenon as well as the art therapy process and components. Also, some empirical studies were reviewed on the two variables under study. Lastly a conceptual framework was created to support this study.



CHAPTER THREE RESEARCH METHODS

Introduction

This chapter is dedicated to the description of the methodology that was used in gathering and processing data for the research work. The chapter covers the following: procedures as a measure to solicit information on the research topic; research design, population, sampling procedure, data collection instrumentation, data collection procedure, data processing and analysis as well as ethical considerations necessary for the study.

Research Design

To help attain utmost results from the study, the researcher employed the quasi-experimental design of investigation to aid in implementing the intervention (creative art therapy). According to Marczyk, DeMatteo, & Festinger (2005) the essence of an experiment may be described as observing the effects on a dependent variable on the manipulation of an independent variable. Specifically, the pre-test -post-test design was used. Since the quasiexperimental design is often conducted to evaluate the effectiveness of a treatment, the researcher found it as a more suitable means of helping to find the effects of creative art therapy (CAT) on the stress levels of the Senior Staff. The need to conduct a pre and post-test on data for evaluation also necessitated the use of this design to help achieve the best judgement from the data obtained.

According to Thomas (2020) a quasi-experimental design involves realworld interventions instead of artificial laboratory settings. Due to this, a quasiexperiment has a higher external validity. Even though the independent variable is manipulated for effect evaluation of its impact on the dependable variable,

the quasi-experimental design generally lacks random assignment. White and Sabarwal (2014) explain that assignment to conditions or groups is by means of researcher/administrator selection, self-selection – participants choose treatment for themselves – or both of these routes.

With a control group whose pre-intervention characteristics are similar as the treatment group, White and Sabarwal (2014) make it clear that the results of the intervention can be said to have caused some differences in outcomes between the treatment and comparison groups. Thus, 'the observed differences between the two groups in the indicators of interest may therefore be due – in full or in part – to an imperfect match rather than caused by the intervention' (p.1). In a pre-test -post-test design, the dependent variable is said to be is measured once before the treatment is implemented and once after it is implemented. According to Creswell (2012) if the average post-test score is better than the average pre-test score, then it made sense to conclude that the treatment might be responsible for the improvement.

Quasi-experimental research eliminates the directionality problem because it involves the manipulation of the independent variable. It does not eliminate the problem of confounding variables, however, because it does not involve random assignment to conditions (White & Sabarwal, 2014). For these reasons, quasi-experimental research is said to be generally higher in internal validity than correlational studies but lower than true experiments.

The quasi-experimental research design is affiliated with the pragmatic paradigm or philosophical tradition. Pragmatism is an attitude, a method, and a philosophy which places emphasis upon the practical and the useful or upon that which has satisfactory consequences (Collis & Hussey, 2014). As a research

paradigm, pragmatism refuses to get involved in the contentious metaphysical concepts such as truth and reality inquiry (Creswell & Clark 2011). Instead, it accepts that there can be single or multiple realities that are open to empirical inquiry.

According to Kaushik & Walsh (2019) pragmatists believe that reality is constantly renegotiated, debated, interpreted and therefore, the best method to use is the one that solves the problem. The writers further explain that the pragmatic research philosophy can integrate more than one research approach and research strategies within the same study; thus, it can combine both, positivist and interpretivism positions within the scope of a single research according to the nature of the research question. This indicates that research questions are the most important determinants of this philosophy.

Although other research designs could have been used, the researcher finds the experimental design as the best means of conducting this study. The experimental design offers the appropriate platform to examine the variables to seek the accurate impact of the intervention. This particular experimental study also provides flexibility for a natural impression of the intervention to be made on respondents.

Study Area

The study area used for the research was the University of Cape Coast (UCC). UCC is located in the Cape Coast Metropolitan Area in the Central Region of Ghana. The university is a government institution that mostly trains students in educational programmes. Thus, the institution upon its inception was given the mandate 'to train graduate professional teachers' for second cycle schools (University of Cape Coast, 2020). The institution started as a University

College which was established in October 1962 with 155 students. It gained autonomy in October 1971, and currently has a student intake of above 19,963 (University of Cape Coast, 2020) and a staff capacity of 5,358: 791 - senior members, 1,513 - senior staff and 3,054 - junior staff (Student Records and Management Information Section, 2016). This study focused on the senior staff of the university.

Over the years the university has expanded its scope of training students from the initial two (2) departments of science and art to other branches of education (University of Cape Coast, 2020). UCC currently functions under the college and school system and has five (5) colleges, twelve (12) schools and many faculties, institutes and departments operating under them that help achieve the goal of nurturing the students into responsible citizens in their respective fields of study (Student Records and Management Information Section, 2016). These colleges include the Colleges of Distance Education, Agriculture and Natural Science, Health and Allied Sciences, Educational Studies and Humanities and Legal Studies all of which groom future leaders of the nation.

The study area was chosen primarily because the researcher wanted to use the same institution used for initial study. The study area was also one that could be easily assessable to the researcher due to proximity to the institution.

Population

A population is defined mostly as a group of individuals who tend to have certain characteristics in common. It also represents the group in which the researcher will favourably generalise results of the study (Marczyk, DeMatteo, & Festinger, 2005; Best & Kahn 2006). This study targets a group of workers

referred to as the senior staff within the University of Cape Coast (UCC). As the name suggests, the University is situated in the Cape Coast Metropolitan Area, which is located in the Central Region of Ghana.

The characteristic feature of the target population is that the senior staff of the university are mostly non-teaching staff – senior technical and nontechnical staff – who tend to be 'middle class' workers in the university (Student Records and Management Information Section, 2016). They tend to mediate duties in all sectors of university. Their duties range from administration, research, catering, medical, procurement and technical duties depending on their qualifications and expertise (Directorate of Human Resource, 2017).

Information from Student Records and Management Information Section (2016) indicates that the university has about 1,513 senior staff: 967 males and 546 females – employed in the different staff categories of the institution. These categories include professional or technical and the nonprofessional or non-technical. These categories of job description are further ranked into four levels depending on one's experience as well as educational level. Thus, the above ranks can be identified in both the professional as well as the technical disciplines, for instance administrative assistant, technician, research assistant, library assistant, nursing officer and so on. The ranks depending on one's job description could belong to the following ranks 1: chief, rank 2: principal, rank 3: senior and rank 4: which makes reference to the simple description of the duty.

The description and distribution of study population according to gender and job categories is catalogued in Table 1:

Table 1: Senior Staff Population

Categories	Female	Male	Number of staff
Professional/ Technical	82	263	345
Non-Professional/ Non-Technical	464	704	1168
TOTAL	546	967	1513

Source Student Records and Management Information Section, 2016

Sampling Procedure

The selection made from a given population, which serves as the focus for the study is termed as the study sample (Greener, 2008). Experts explain a sample as a fraction or proportion of a population selected for observation and analysis in any given study. It is further explained that the purpose for undertaking the research ought to be considered in obtaining a befitting sample. In choosing a sample size, Greener (2008), Kumar (2011) and Pandey & Pandey (2015) agree that the level of accuracy in the research is dependent on the sampling process.

Taking a population of 1,513 senior staff through creative art to help control stress would corrupt some rules governing group counselling and therapy. Thus, standards set to ensure confidentiality and group dynamics, group size as well as the loss of focus among group members, and on the subject matter, can be compromised when using a sample as huge as 1,513, (Malchiodi, 2003; Liebmann, 2004; Jacobs, Masson, Harvill and Schimmel 2009; Corey, 2012; Feltham, Hanley, & Winter, 2017). Moreover, the researcher believes that not all senior staff in the university have a high level of stress and will need an intervention. Jacobs, Masson, Harvill and Schimmel (2009), in discussing issues pertaining to group size, make it clear that for personal growth and

support groups as well as counselling or therapy groups usually about five to eight (5-8) members is adequate. They further contend that provision could be made for such groups to have as low as three (3) and as many as twelve (12) members, depending on the purpose, length of time for the sessions, as well as the expertise of the leader (therapist or researcher). Some earlier research such as Malchiodi (1999) used six (6) participants, Kapitan (2012) used ten (10), whiles Weiland (2012) also used nine (9) participants in a group to evaluate the effects of stress.

The researcher considered a sample of twenty (20) senior staff for the research: ten (10) participants each for the control and experimental groups. The researcher believes that working with a sample of ten (10) was expedient bearing in mind her level of expertise that was available during the study. Thus, ten (10) participants were used as the control sample and another ten (10) individual participants were used as the experimental sample, who were taken through ten (10) meetings – one and a half (1½) hour sessions each meeting – and assisted to express themselves well during the CAT sessions.

To effectively execute the research, the researcher applied a multi-stage sampling technique to help arrive at the final sample of twenty (20) senior staff. According to Howitt and Cramer (2011), the multi-stage sampling technique is a sampling technique that ensures that sampling is done in several stages to arrive at the estimated sample size. The writers make it clear that it is most often used in cases "where the population is widely dispersed", (p. 246). Due to the enormous size of the population and the sample size to be used for the experiment, the researcher perceives a great need to apply a multiple stage sampling method to fairly arrive at the sample size. Progressively, methods such

as the purposive, cluster, convenience, simple random (fishbowl) were used at different stages to achieve the final sample.

The selection of the research sample started with the selection of two (2) colleges from the five (5) colleges within the university using the cluster sampling method. Since it was impossible to choose 20 participants from the 1513 senior staff, the researcher used the cluster sampling method to help group them for easy sampling. Kumar (2011) explains that 'clusters can be formed on the basis of geographical proximity or a common characteristic that has a correlation with the main variable of the study' (p.165). This is to restrict the time taken to draw up the sample. The researcher further selected two (2) faculties or schools each from the two (2) colleges also using the cluster sampling method. With the selection of four (4) faculties or schools, the researcher used simple random sampling to take out two (2) departments from each of the selected faculties or schools.

To obtain the sample of stressed participants for the control and experimental groups, the researcher first visited selected departments to project the purpose of the study and gather data to measure stress levels of senior staff within selected departments. Due to the protocols and restrictions that came along with the COVID pandemic, the researcher reliably used the convenience sampling method also known as the accidental sampling (Walliman, 2011), to help attain respondents. A convenience sample according to Fraenkel, Wallen, & Hyun, (2012), is 'a group of individuals who (conveniently) are available for the study' (p. 99). Thus, at the point of data collection, some senior staffs were not available due to mandatory leave arising from the Corona virus. With the aid of an introductory letter from the Department of Guidance and Counselling (Appendix H) and the clearance letter from the Institutions Review Board of the University (Appendix J), the researcher went out to various departments to seek respondents. After a brief exposition to the study, the researcher sought consent and distributed copies of the Perceived Stress Scale (PSS) forms to 156 senior staff in the selected departments. For easy identification and association of respondents to the filled PSS form, codes were assigned to the list of senior staff within offices visited. Returned forms were scored to ascertain the individual stress levels of the respondents.

Having sorted out the PSS forms and identified highly stressed senior staff, the researcher contacted all respondents whose stress scores were above average 16-40 – approximately 95.5% of the respondents. Thus, 156 senior staff were accessible at the time of data collection. Codes of senior staff who were willing and showed interest to participate in the research – based on the objective of the study discussed with respondents –were collated by the researcher for further sampling into the control and experimental groupings.

The codes were used to randomly sample twenty four (24) participants from the eight (8) departments selected from the two (2) faculties or schools. The eight (8) selected departments from the four (4) faculties or schools were used as a representation of stressed senior staff. To have an equal representation of selected faculties or schools in both the control and the experimental groups, the researcher selected one (1) department each from the two (2) faculties or schools to participate equally in the two (2) research groups. This was meant to help control any form of bias to any given department, and or faculty or school as well as any given speciality or categorisation within the senior staff

responsibilities (administrative, research, catering, medical...). According to Dixon, Bouma and Atkinson, (1992) the random method of sampling 'provides the greatest assurance that the sample drawn, accurately represents the population'.

Thus three (3) senior staff were randomly selected from each of the eight (8) selected department. At this point the researcher randomly sampled one (1) department each from the two (2) faculties /schools to participate in the control or experimental groups. The purpose for this action was to fairly share the assumed participants equally into the control and experimental groups for the experiment. With the aid of convenience sampling twenty (20) respondents were used to select the final sample for the study.

	Stage	Techniques	Sample
	1	Cluster Sampling	2 Colleges out of 5 Colleges.
	2	Cluster Sampling	2 Faculties /Schools each from the 2 Colleges.
	3	Simple random	2 Departments each from the
		Sampling	4 Faculties /Schools.
	4	Convenience	156 senior staff from the 8 sampled
	5	Sampling	Departments
	5	Simple random	3 stressed senior staff from each selected
		Sampling	department
			\Rightarrow 6 stressed senior staff from each school or
			faculty
	_		laculty
			\Rightarrow 12 Senior staff from each college
	6	Simple random	1 Department each from the 2 Faculties
		Sampling	/Schools to participate in the control or
			experimental group.
-			\Rightarrow Control - 1 Department from each of the 4
R			faculties /schools
>	2		⇒ Experimental group- 1 Department from
1	2		each of the 4 faculties /schools
1	2.57	Convenience	20 Respondents
0	V/S	Sampling	
	8	Random	10 Respondents per group of experimental or
		Sampling	control
			\Rightarrow 20 Participants for the study

Table 2. Multi-stage Sampling outline

Source: Field Survey, 2020

Data Collection Instruments

To help gather relevant information from the targeted sample, the researcher utilised five (5) different instruments. Instruments such as an adapted version of the Perceived Stress Scale (PSS), a stress symptom checklist, biodata questionnaire, the Visual Analogue Scale (VAS), a creative art therapy experience questionnaire, and a daily creative art therapy expectation form or checklist were used in this study.

An adapted version of the PSS was the main instrument that was used to collect data on the stress level of the sample. This instrument was used to measure stress levels of senior staff before and after the experiment. The PSS (Appendix A), which is normally termed as the PSS-10 is said to be a self-report questionnaire developed by Sheldon Cohen, (Mind Garden Inc., 2019). According to Lesage, Berjot and Deschamps (2012), the PSS questionnaire was developed based on Lazarus' transactional model of stress. They also explain that the questionnaire 'assesses the cognitively mediated emotional response to an objective event, rather than the objective event itself' - as a checklist of stressful events would do, (p.2). The PSS is said to be the most frequently used instrument in measuring stress levels of individuals in different stress related circumstances (Maroufizadeh, Foroudifard, Navid, Ezabadi, Sobati, & Omani-Samani, 2018). The objective of the PSS is to assess the degree to which an individual perceives a given life situation as stressful. According to Mind Garden Inc., (2019), items present on the scale help to assess how unpredictable, uncontrollable, and overloaded respondents find their life activities to be. They explain that questions asked, directly seek to measure the current levels of experienced stress and are general in nature, and this contributes to the universal

adoptability of the PSS. The boundaries for evaluating one's perceived stress is limited to a period of the last month. Thus, respondents were asked to indicate the extent to which life has presented them with unpredictable, uncontrollable, and overloaded situations, over the past one month (Cohen, Kamarack, & Mermelstein, 1983). Warttig, Forshaw, South and White, (2013) indicate that the scale has ten items which typically operate on a 5-point Likert scale rating system. The response format on the Likert scale is, 'almost' 'never', 'sometimes', 'fairly often', and 'very often'. The administration of the PSS is said to take 5-10 minutes to complete and its universality is widely spoken of, since it is said to cover a population of individuals with as low as junior high school education (Mind Garden Inc., 2019).

Guidelines provided for the use of the PSS make it clear that out of the 10 items, four (4) items are positively stated while six (6) items are stated in the negative. Thus, items 4, 5, 7 & 8 are positively stated and items 1, 2, 3, 6, 9, 10 are negatively stated. Coding format generated for the PSS questionnaire is 0, 1, 2, 3, 4. During analysis, scores were obtained by 'reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 and 4 = 0) to the four positively stated items (items 4, 5, 7, and 8) and then summing across all scale items'. The interpretation of the scale's score is declared as follows: 0 - 7 = very low health concern; 8 - 11 = low health concern; 12 - 15 = average health concerns; 16 - 20 = high health concern; $21^+ =$ very high health concern. The scale is therefore understood by noting that 'the higher the score obtained, the higher the stress level' of the individual (Cohen, Kamarack, & Mermelstein, 1983). The PSS is said to have a reliability of .78 alpha. The validity of the instrument is described as having a correlation in a predicted way with other measures of stress.

Having adopted the original PSS questionnaire for the study, the researcher modified it slightly by adding two (2) items to the original ten (10) items used worldwide. The additional non-scoring items included an inquiry on what in the individual respondent's view caused them stress and on what maintenance strategies they applied to help control their stress levels. Responses from these additional items were meant to help the researcher understand the main source of their stress and also to check if the intervention used for the experimental group was worthwhile as compared to participants' adopted personal stress control methods.

The second instrument that was used is the Stress Symptom Checklist (Appendix B). The use of this instrument was to serve as a supporting indicator that would also help gauge the frequency of stress the individual respondent experienced. The Stress Symptom Checklist is a tabular scale that vertically presents a list of twelve (12) most likely ailments that are associated with stress. To help ascertain the extent to which the individual is stressed, the frequency of these possible reactions/ ailments are enquired of in a 6-point Likert scale form – on the horizontal grid. The degrees for measuring the presence of these symptoms are: 'All day or every day/night'; 'Once or twice daily'; '2-3 times per week'; 'Once a week'; 'Once a month'; 'Never'. Administering this checklist takes 3-7 minutes to complete. Evaluation of the checklist is done by simply noting the frequencies of the experiences the individual obtains in relation to any given symptom of stress. This is a simple indication that stress is possibly having a negative impact on the life of the individual. A caution note beneath the list draws the attention of respondents to the fact that even if he/she

seems to be used to feeling these symptoms, he/she may want to change or eliminate its constant occurrence to reduce the effects of stress on the individual.

A self-designed biodata questionnaire was handed to the final sample that was engaged in the experiment (Appendix C). The use of this instrument was to help solicit background information from the respondents. This information is perceived by the researcher to be relevant in knowing the background of the sample being used for the experiment. The questionnaire was handed over to the two groups on the very first encounter with the researcher.

A visual analogue scale (VAS) was used as a supporting stress measurement tool all through the study for the experimental group – from the pre-testing stage all through the experiment and for post-testing (Appendix D). Thus, aside the pre and post-tests, the VAS was applied before every given art therapy session. This action the researcher believes would help to follow the sequence of stress during the eight (8) sessions of the intervention. This action was expected to help the individual participant–self-evaluate the stress level he/she believes the week had made on his or her health.

According to the medical dictionary, the VAS is used to measure subjective phenomena (Merriam-Webster Incorporated, 2019). It is described as a measurement instrument that tries to 'measure a characteristic or attitude that is believed to range across a continuum of values and cannot easily be directly measured' (Wewers & Lowe, 1990). The VAS is said to be originally designed to measure pain (Carlsson, 1983). Researchers over the years have adopted it to measure other subjective characteristics or attitudes such as happiness, anxiety, stress among other conditions. Some researchers indicate that the VAS is empirically used to assess perceived stress for 'clinical assessment of self-reported stress' (Lesage, Berjot & Deschamps, 2012).

Klimek, Bergmann, Biedermann, Bousquet, Hellings, et al. (2017), explain that the use of the word 'visual' in visual analogue scale 'emphasizes the concrete nature of this type of scale (straight line), in contrast to abstract, non-representable evaluation scales (eg.: "... I don't feel well ...")'. The VAS is a self-reporting device consisting of a line of predetermined length (approximately 100mm) that separates extreme boundaries of the phenomenon being measured (Wewers & Lowe, 1990). The VAS is designed in a linear fashion either in the vertical manner or in the horizontal. Different designs of the VAS have been used to help respondents of various backgrounds. Some versions of the VAS are presented in a simple plain line, a line with indications of equal spacing or rating (middle point, graduations or numbers), others come with facial expressions of the intensity of the phenomena being measured, whiles others have both the numerical indication and facial expressions to make it much easier for respondents to make a connection with the expressions to the graduations indicated on the line (Wewers & Lowe 1990; Lesage, Berjot & Deschamps, 2012; Klimek et al. 2017).

The VAS is administered in less than 2 minutes. Rating for the values obtained from a VAS are interpreted as: 0 to 4 mm - no pain; 5 to 44 mm - mild pain; 45 to 74 mm - moderate pain; 75 to 100 mm - severe pain. This scale was adopted to interpret the stress levels indicated by the respondents.

To help gather information on the knowledge and skills of the sample in the experimental group, the researcher designed a creative art therapy experience (CATE) questionnaire. This is a twenty-seven (27) item

questionnaire meant to gather background information on creative art from the respondents. The questionnaire has been partitioned into two (2) segments, a pre-therapy section (Appendix E) and a post-therapy section (Appendix F). The pre-therapy part was used to gather information on respondents' fore knowledge and skills in art, whiles the post-therapy part helped to evaluate the experience respondents had during the eight (8) sessions CAT session.

The CATE questionnaire could also be described as having four (4) parts. As stated earlier, the first three sections were used as a pre-therapy questionnaire at the initial meeting with respondents and the fourth part served as a post-therapy questionnaire at the last meeting with the experimental group. The first section has nine (9) items that helped to explore respondents' personal views on creative art in general. The second section has eight (8) items which seek to find out about their educational background in creative arts. The third section has three (3) items that ask question on their everyday experiences and its connection to art in general. The fourth section which was used as an evaluation to the CAT experimentation has seven (7) items that enquire primarily about respondents' experience during the eight (8) therapy sessions. The questionnaire is estimated to take about 10-15 minutes to complete the first section, and 5-8 minutes to finish the second section.

All such information solicited from the CATE questionnaire was expected to help during the evaluation of the impacts of the experiment on the individuals' post-test stress scores. Bazargan and Pakdaman (2016), before conducting a study took the background information of participants in art. This was to help control any confounding effects of having history of artistic activities and interests. In their research on the effectiveness of art therapy on

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internalised externalised problems of adolescent girls, the researchers discovered that for art to serve its purpose as a therapeutic technique, the overall ability and interest in the art was a necessary ingredient to make a positive impact for the effectiveness of the exercise.

For the purpose of soliciting the expectation of the sample on what they perceived their experience would be for any given CAT session, the researcher used a daily creative art therapy expectation form (Appendix G). Thus, the CAT expectation form was a one (1) item questionnaire to seek their expectation for the day. Like the VAS, this was given out to respondents at the beginning of every CAT session.

Reliability and validity of instruments used in the Study

Reliability in research refers to the consistent ability of an instrument to measure its targeted focus of study (Silverman, 2000; Creswell, 2009; Ofori & Dampson, 2011). Pandey and Pandey (2015) also explain it as the 'consistency throughout a series of measurements', (p. 21). The underpinning factor raised by these writers is that attention be paid to items provided in a questionnaire to help solicit and provide consistent and reliable information that would help attain an appropriate measure of facts.

Validity on the other hand, explains the ability of the instrument to be proven effective in its measure of facts. Marczyk, DeMatteo, & Festinger, (2005) state that validity is 'the conceptual and scientific soundness of a research study or investigation', (p. 66). According to Pandey & Pandey (2015) 'any measuring device or instrument is said to be valid when it measures what it is expected to measure' (p. 21). These writers project the fact that research of any kind must be able to draw 'valid conclusions' in order to be certified.

The original reliability of the PSS indicated a reliability of .78 alpha, but the Cronbach Alpha of 0.760 was generated from this current study. The alpha value of approximately 0.80 shows a significantly high level of consistency among the data set generated for this study. This further shows that responses to similar or homogenous indicators are about 80% of the time consistent with one another, hence deems the study to be subjected to further analysis.

The validity of the PSS used for this study, was studied and scrutinized by my supervisors to ascertain the dependability and consistency of the items to appropriately measure stress. Amedahe (2017), explains that validity does not focus on the instrument but rather on the unassailability of the interpretation that is realised after the evaluation of the scores.

All other supporting instruments used in the study, served the purpose of helping to solicit relevant information that aid the researcher gain greater understanding of the characteristics of the sample used for the study. Since these instruments were not necessarily scored and analysed by statistical means to project or conclude on the effect of stress, the reliability, face validity as well as content validity was conducted under the guidance and scrutiny of my supervisors to authenticate the accuracy of these instruments. Thus, the instruments were accredited to have sufficient and necessary components to help measure what they were originally intended to.

Data Collection Procedures

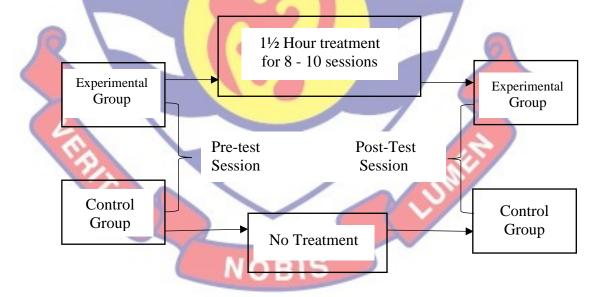
Before any contact was made with the target group, the researcher sought an introductory letter from the Department of Guidance and Counselling of UCC (Appendix H). The letter along with the clearance letter from the Institutions Review Board of the University (Appendix J) was taken round at the point of data collection to help the researcher gain full access in the various departments for easy collection of data. The researcher offered detailed explanation whenever respondents needed explanations on what the study really entailed. Senior staff who showed interest were given an adapted version of the Perceived Stress Scale, a Stress Symptom Checklist, and a self-designed biodata questionnaire to complete. Those found to be above the average health concerns range from the PSS were listed for further sampling. Thus, senior staff who obtained a score of 16 and above were further sampled for onward study. According to Cohen, Kamarack and Mermelstein, (1983), a score of 16-40 is considered risky to one's health.

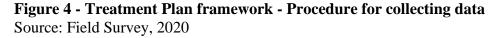
After sampling, participants randomly selected to participate in the two groups – experimental and control –were consulted on what their expected level of commitments to the groups they had been designated to entailed. Respondents of the control group were not engaged in any way but encouraged to find ways to reduce their levels of stress in ways that seemed right for them, whiles the experimental group was taken through 10 sessions of creative art therapy.

The experimental group was engaged in a single session to introduce them to the concept of creative art, eight (8) sessions of a practical intervention (creative art therapy), and a single evaluative session. Each CAT session took approximately one and a half (1½) hour, as respondents were taken through different creative artworks picked out for the various sessions. Upon meeting participants at the preliminary session, the researcher handed a questionnaire on art therapy to the respondents to complete. This provided the researcher some

understanding on their individual backgrounds in art in order to know the sort of assistance to provide individual respondents during therapy. Before every creative art therapy session, participants were given a visual analogue scale to personally determine their individual stress levels. This was compared to the final PSS scores at the end of all eight (8) therapy sessions, to check if there is a progressive improvement in their stress levels. After the last session, respondents were handed Section B of the questionnaire (creative art therapy evaluation) to help them evaluate their experiences during the eight (8) sessions of creative art therapy.

At the end of ten (10) sessions in six (6) weeks, both groups were given the PSS (post-test form) to complete. This was analysed together with the pretest forms of respondents to help arrive at a statistical conclusion on the extent to which the experiment helped in reducing stress or not.





Intervention Procedures

Below is a step by step description of how the respondents were progressively taken through the eight to ten (8-10) sessions of creative art therapy treatment procedure. Eight to ten (8-10) sessions of creative art therapy treatment procedure were organized twice a week in a framework of one and a half – two ($1\frac{1}{2}$ -2) hours, depending on the enthusiasm of group respondents. At the beginning of every session, the researcher made it a point to provide them with some forms of encouragement to help excite them of their ability to produce the various artworks.

Generally, respondents were asked to fill a visual analogue scale (Appendix D) and a creative art therapy expectation form (Appendix G) before the activities for each day began. Also, before each practical session, the researcher made PowerPoint slides out of the YouTube videos that were used as a point of reference for each creative artwork to be made at each session. The Uniform Resource Locators of the adopted YouTube videos were also shared among respondents for them to have fore-knowledge of what to expect before each session. This really helped to not just create awareness of what would be done, but also empowered them on the simple skills they needed to cultivate to create all artworks that were going to be produced.

Also, each session made use of soundscapes downloaded from YouTube to serve as music therapy that was being used during the sessions. Relaxing Sounds Spa (https://play.google.com/store/apps/details?id=com.audio.musicrelaxingspa)

and Natural Sounds (https://play.google.com/store/apps/details?id =net.metapps.naturesounds) were the two applications that were used as music

therapy tunes. Respondents were randomly called to choose from a range of sounds for each session.

The researcher provided all materials used for every artwork that was produced. Due to the presence of COVID-19, during every session, respondents were provided with sanitizer to serve as a COVID-19 protocol for group members. Each respondent was also provided with a personal kit to work with during sessions. The kit included a file, rule (12"), plastic pouch, needles (2" &

3"), comb, and a scissor.

Session One: Introduction

Objectives:

The objectives for the session were to: -

- I. Get better acquainted to respondents.
- II. Explain the purpose of the research.

III. Provide respondents with a better understanding of what creative art therapy entails.

Answer any mind-boggling questions from respondents.

Encourages respondents to give this therapeutic experience a chance.

Introduce respondents to possible artworks that would be done during the practical session.

VII. Fix a permanent therapy schedule to fit participants availability.

Activities: -

IV.

VI.

Having contacted respondents that had agreed to be part of the experimental group as individuals, the researcher saw the need to have them gather as a group to provide them with a clearer exposition on the subject of creative art therapy as a whole, and its relation to stress. An initial meeting was

arranged for all respondents based on the majority agreeing on the most favourable date for the introductory session.

On the set date for this session, there was an introduction of all respondents starting with the researcher to help create a more relaxing atmosphere. Having set the pace for this session with this form of relationship building strategy, the researcher welcomed each respondent and provided them with an Informed Consent forms (Appendix I) to help secure participation of all respondents all through the therapy sessions. Also, they were provided a Creative Art Therapy Experience (CATE) questionnaire I (Appendix E). During this brief assignment, respondents were assured that information provided on the CATE was solely to serve the purpose of pre-informing the researcher on their basic knowledge on the subject and also help the researcher to know whom to help and the extent to which they might need personal assistance during the practical session. The researcher, having collected the forms, thanked respondents and started the introduction on creative art therapy with a simple practical experience she had years back that provided some inspiration to this study.

To start the actual discussion, a script on creative art therapy and stress (Appendix K) was provided to participants. During the exposition on the subject, it was clear that respondents expressed interest in the different dimensions of creative art production and its uses. Some areas that were treated included the following:

i.	Definition	vi.	Goals / benefits,
ii.	Approaches/ treatment models	vii.	Principles (not judgmental)
iii.	Types and forms	viii.	Uses and importance
iv.	Tool & Materials	ix.	How art therapy works on stress

v. Settings

After the above exposition, the researcher informed them of what was expected of them as participants of the study, after which they were given an opportunity to ask questions which the researcher took time to answer so as to assure them of her support during the weeks ahead. Surprisingly, when the researcher was explaining some possible interpretations of some characteristic features that ought to be considered when children make drawings, a respondent shared an experience about her children that had a link with the information on interpretation of art works. Having attempted to provide a simple interpretation, the participant provided information that confirmed the researcher's assertions of the true reflection of this interpretation in real life. This awakened the interest of participants to the experience they would be having during the weeks ahead.

Hereafter, the researcher provided an insight into possible creative artworks for the CAT treatment through a PowerPoint presentation. After informing respondents of materials used to produce these items, they expressed some level of surprise since in their opinion, it was impossible to use those items for art. With such excitement in the atmosphere, the researcher asked that they pick out the very first item they would love to try their hands on during the first two therapy sessions. Though it was initially not easy to choose, the respondents finally picked out one most admired product for the first practical session.

With the most preferred craft agreed upon, respondents were allowed to schedule days and times at which they would like to meet. Since there was a fair share of respondents opting for a session during breaktime and an equal share of respondents opting for a session after work, the participants agreed to have two separate sessions on the agreed days so that all respondents would be able to attend at their convenience. Having discussed and arrived at an agreed schedule for meeting, the researcher appreciated respondents' presence. Respondents were hereby encouraged to attend the first treatment sessions as planned. **Session Two: Practical Session 1 Product**: Pencil Holder Adopted from: https://youtu.be/7aeD7NC0TKY Tools and materials used: Beads (gold & pearl) a. Coloured cotton bud e. Used drinking bottles Glue gun b. f. Coloured foam sheet g. Glue stick c. d. Ribbons (cotton, satin and h. Scissor metallic) i. Rule **Objectives**:

The objectives for the session were to:

- I. Help respondents to make a pencil and pen holder.
- II. Encourage freedom of self-expression through freewill choosing of materials.
- III. Build confidence in respondents.
- IV. Help participants generate a love for artworks as they participate in the

production.

- V. Promote the love for creating artworks.
- VI. Create an atmosphere where stressed respondents will become relaxed as they engage in creating artworks.

Activities: -

After welcoming respondents, the researcher provided every respondent with a personal kit that he or she was to personally use all through the therapy sessions –respondents freely chose kits according to their preference for certain colours of items provided. With the fore-knowledge of the artwork to be created for the day, respondents were encouraged to select materials needed based on their preference to whatever colour, texture and availability of items displayed for the production process.

The researcher started to illustrate how to start the craft to help respondents gain some amount of energy to start their artworks. Slides of the artwork to be produced for the day were also projected on the board to help serve as a guide all through the sessions. These served as guidance on how to create the pen holder. All through the session, respondents asked questions and tried to compare their works with other respondents. These behaviours served as encouragement and inspiration for creating individual works. Whenever an individual participant wanted to pick up any material to apply on the artwork,

he or she would interestingly apply the item in different colours and textures to be sure which one he or she really wanted to apply to his or her work. Such actions served as a means of positive self-expression and self-assuredness of an inner expression being displayed in the artworks that the participants were creating.

Due to the intricacies of the artwork, respondents were not able to complete the task. The researcher and respondents agreed to complete the craft during the next session. The researcher provided a means to protect their uncompleted works for the next session.

Session Three: Practical Session 2

Objectives:

The objectives for the session were to:

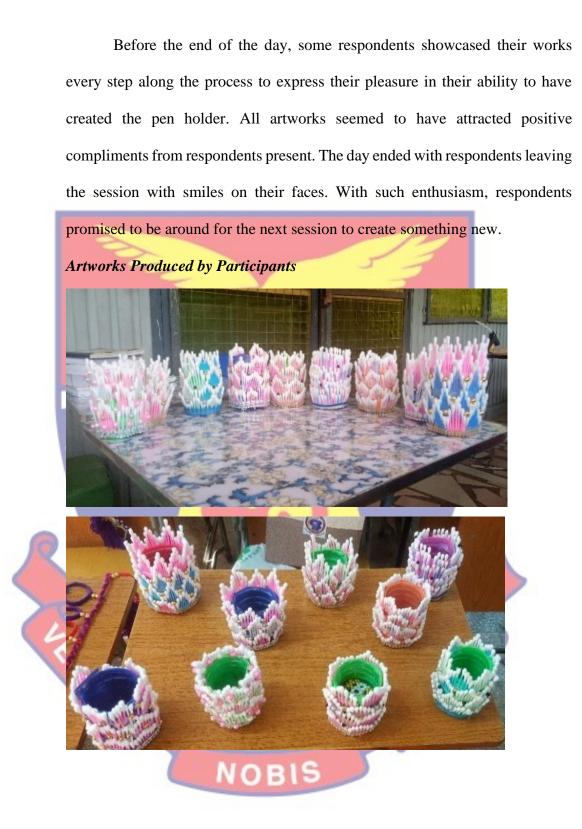
- I. Continue production of individual artworks.
 - Motivate members to achieve their target.
- III. Create an atmosphere where stressed members will become relaxed as

they engage in creating artworks.

Activities:

Π.

Respondents came in early and straight away picked up their personalised kits and uncompleted works. Respondents showed high levels of interest for what they were doing as they made effort to apply the right accessories (beads and ribbons) to beautify and finish their works. The researcher went round constantly appreciating works being created by participants, whiles some respondents also went out of their seats to take inspiration from other group respondents.



Session Four: Practical Session 3



relaxed as they engage in creating artworks.

Activities:

When respondents entered, the projector was already set, displaying the step-by-step procedures for making the selected artwork for the day. Respondents, after picking up their kits, straightaway made way towards the materials needed to produce the flower vase.

Since respondents stated that they wanted to try to start the day's craft without any form of illustration, the researcher only went round to assist those who needed some form of support in measuring, cutting and gluing materials being used to make the vase. With much passion and focus, respondents were able to complete the construction of this artwork in no time. Artworks produced in this session were of great delight such that onlookers passing by occasionally stole glances while some popped in and asked what was going on and if they could join in the activity.

At the end of the day, everyone was happy to have finished the task of the day. Though respondents were wished to send works home, they were reminded that it was going to be kept till all practical sessions were over. This was to help in the individual and group appreciation and evaluation process scheduled for the last meeting.



Artworks Produced by Participants

Tools and materials used:

- a. Paper tape e. Cotton twine
- b. Push pins f. Comb
- c. Key holder ring and chain g. Scissor
- d. Woollen yarn h. Ruler

Objectives:

The objectives for the session were to:

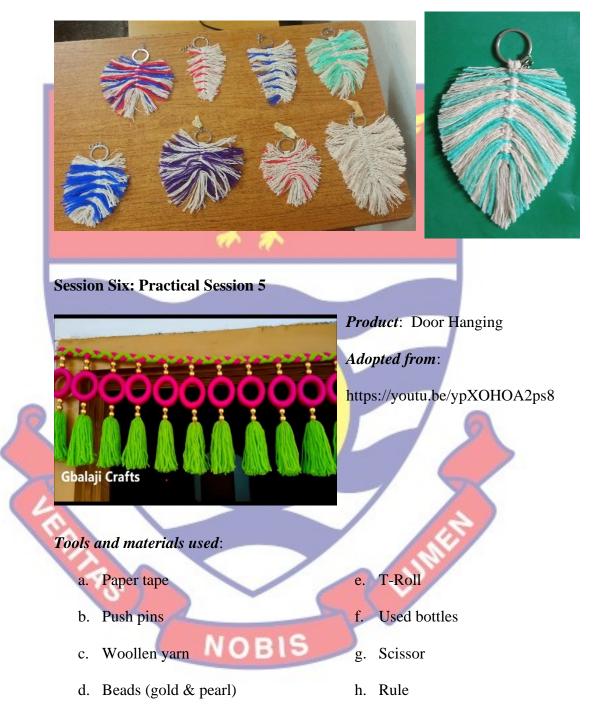
- I. Enable respondents to make a Macramé key holder.
- II. Build confidence in respondents.
- III. Help participants develop an interest in artworks as they participate in the production.
- IV. Create an atmosphere to help stressed respondents become relaxed as they engage in creating artworks.

Activities:

At the beginning of the session, the researcher took time to take respondents through the intricate art of Macramé – knotting and weaving. Aside the replayed version of the procedure on the board, the very first step was illustrated twice so respondents could get it right.

The researcher went to every table repeatedly to aid all respondents knot and weave in their cords on the keyholder ring. Respondents gained more confidence in their works when they got to the end of the weaving process – combing and cutting session. Though the keyholder appeared to be the simplest artwork to be made, it was the most demanding due the skill needed to weave in the knots. For this reason, this particular artwork as done with a high level of concentration and silence, was respondents were engrossed in this involving skill.

Artworks Produced by Participants



Objectives:

The objectives for the session were to:

- I. Respondents would be able to make a woollen door hanging.
- II. Prompt the love for art through free expression and creativity.
- III. Motivate respondents to express themselves through the making of

artworks.

IV. Promote self-confidence in respondents as they create artworks.

 V. Create an atmosphere to help stressed respondents to become relaxed as they engage in creating artworks.

Activities:

After respondents settled in, they were asked to select a combination of cords they would be using for their works. The researcher illustrated the simple plaiting method so respondents could start their hangings. Those who already had knowledge on how to braid three cords together assisted others in this process, since the process needed two hands to complete the long plaited strand.

Respondents were also showed how to make the handing tassels. Creation of this part of the hanging took a lot of time. For this reason, respondents were asked to stop the production of tassels so that they could learn how to make the rings. After making about three to four (3-4) coated rings, respondents were asked to end the day since it was time to end the session. They were asked to pick coloured yarns for the tassels and uncoated rings and were encouraged to finish the set number needed for the completion of the door hanging.

Session Seven: Practical Session 6

Objectives:

The objectives for the session were to:

- I. Continue production of individual artworks.
- II. Motivate respondents to achieve their targets.
- III. Help respondents reduce stress as they engage in the creation of artworks.
- IV. Create an atmosphere where stressed respondents will become relaxed as they engage in creating artworks.

Activities: -

Participants appeared for therapy with all rings and tassels ready to be attached on the braided yarn. The researcher now took time to demonstrate the way by which they could attach the beads on the tassels and further attach them to the main cord that would hold all the pieces together as a single unit. Once again, due to the elaborate nature of attaching tassels to beads, beads to rings, ring to beads, and finally attaching everything to the braided cord, respondents were so focussed and engaged in the art of creating the door hanging. Thus, this practical experience taught respondents to be relaxed and attentive.

Artworks Produced by Participants



Tools and materials used:

- a. Old bottles e. Glue stick
- b. Plastic spoons f. Scissors
- c. Beads (gold & pearls) g. Rule
- d. Glue gun

Objectives:

The objectives for the session were to:

I. Respondents would be able to make a Flower vase.

II. Encourage freedom of self-expression – through freewill choosing of materials.

- III. Build confidence in respondents.
- IV. Help participants generate interest for artworks as they participate in the production.

Promote the love for creating artworks.

Create an atmosphere where stressed respondents will become relaxed

as they engage in creating artworks.

Activities:

V.

VI.

Before this session, the researcher took time to cut off the handles of the plastic spoons with hot metal since cutting them off with the scissors was cracking the spoons. As usual, when respondents arrived, the projection exhibiting the step-by-step procedure for making the vase was ready, so respondents straight away gathered all necessary materials they needed to make their artworks and started to work.

All through the session, the researcher went round to provide some guidance on how to arrange the spoons right to achieve the brick-order of

placement. Respondents were advised that care ought to be taken in fastening spoons to the bottle since the heat from the glue gun had a high tendency to melt the spoons. Since respondents were at this point used to the act of fasting material with the glue, there were less casualties during this creative production. *Artworks Produced by Participants*



Tools and materials used:

- a. Paper tape g. Metallic chains
- b. Push pins h. Needles
- c. Beads (gold) 6mm and 3mm i. Fishing line
- d. Beads (pearl) 6mm and 3mm j. Scissor
- e. Bowls (200ml) k. Ruler
- f. Lobster clasp and jump rings

Objectives:

The objectives for the session were to:

- I. Enable respondents to make a beaded necklace or bracelet.
- II. Promote an enthusiasm for producing a chosen artwork.
- III. Promote the love for creating artworks of choice.
- IV. Create an atmosphere where stressed respondents will become relaxed as they engage in creating artworks.

Activities:

On this faithful day, respondents came in confessing their fear of probably not being able to produce the two-artwork looking at how complex it looked. Based on these views from some group respondents, after participants had chosen all materials for the project, the researcher took time to demonstrate – start the first to beadings – for each respondent to follow the delicate pattern on 'weaving' in the beads to produce either a necklace or bracelet, depending on what the participant wanted to produce.

By the end of the scheduled time, most respondents had finished their artworks. The researcher therefore assisted respondents on how to end up and cut off the fishline so that they do not end up loosening the whole artwork. It

was clear at the end of the day that the participants were satisfied with their hard work not just for that day but all through the eight (8) practical sessions. The meeting ended with a reminder that respondents should make it a point to attend the most important meeting session – evaluation and collection of personal artworks.



Session Ten: Evaluation

Objectives:

I.

The objectives for the session were to:

Appreciate participants for making time to join in the experimental

sessions.

- II. Evaluate the impact of the art therapy sessions.
- III. Appraise the level of understanding and appreciation respondents have developed for art therapy.
- IV. To engage Individual and group discussion on artworks created by respondents.
- V. End therapy.

Activities:

The evaluation meeting was formally scheduled to have the whole set of participants who took part in the intervention process present, in a common meeting. Before group respondents arrived, the researcher had displayed all the artworks that had been done over the past eight (8) practical sessions. When everyone settled in, respondents seemed amazed at works they had produced. It was interesting watching then visually and the participants appreciated the works they had all done. They admired the works as if they were not the ones who did them. One comment from a participant was "*was I the one who made this*? I can't believe this".

As a way of starting the formal closing session, respondents were handed a creative art therapy experience questionnaire II (Appendix F) to complete. This was to help the researcher find out the extent to which individuals had been positively impacted on by the creative experience they were involved in during the practical sessions. Participants were also given the perceived stress score forms to fill out for onward analysis.

Having completed both forms, the researcher started a discussion on the appraisal of all the artworks done. Group respondents contributed to this process by pointing out both positive and negative attributes of their own works and suggestions on how they could have been made them better. The researcher once again assured them that the whole exercise was not to produce aesthetic artworks but to give them a different way to retire from the stress and strains of their daily activities.

At this point, the researcher appreciated participants for making time to join in the experimental sessions that were aimed at evaluating the effectiveness

of art therapy and stress faced by the senior staff. The researcher assured the group that she would be sending them simple artworks they could try their hands on from time to time. Also, respondents were asked to freely contact the researcher to help them if they needed any assistance on trying their hands on some a new artwork.

Data Processing and Analysis

As a way of analysing the study, research questions one, two and five were scrutinised using frequencies and/or percentage distributions. Research question three was appraised using frequencies and/or percentage distributions as well as means and standard deviations, whiles research question four was examined using the paired samples T-Test.

To help evaluate results from the study hypotheses, the researcher used a t-test primarily to compare the outcomes of the pre-test and post-test scores of the control and the experimental groups. Thus, for hypothesis 1, a one sample t-test was run, for hypothesis 2, a two sample paired t-test was conducted whiles hypothesis 3, and 4 on the other hand, were scrutinised using paired samples ttest.

A t-test is an analytic technique that helps researchers to compare the mean scores of two groups. It is an "inferential statistics technique used to determine whether the means of two groups are significantly different at a given probability level" (Gay, Mills, & Airasian, 2012, p.632). Ofori and Dampson (2011), also explain that it is an analytic test that 'compares the difference between two group and no more'. They continue to describe it as a parametric test which applies the assumptions underlying the use of parametric test. These assumptions include the fact that the data drawn is normally distributed.,

Random sampling was applied, and that the data collected is presented in the interval/ ratio scale of measurement (Cohen, Manion, & Morrison, 2007; Ofori & Dampson, 2011).

An independent samples t-test was employed to determine differences between the two groups— impact from the treatment on the experimental group and other measures used by the control group. The un-pooled version of the independent samples t-test was used. Thus, the standards error of the mean provided separately by each sample was computed. According to Bordens and Abbott (2011), unlike the pooled form, that "computes an error term based on the two samples combined", the un-pooled "computes an error term based on the standard error of the mean provided separately by each sample" (p. 439). This will help arrive at the true reflection of the meaning of stress scores (pretest and post-test) obtained by the experimental and control groups of individual participants in the research.

Ethical Consideration

To enable the research to be fully executed, the researcher applied for an ethical clearance forms from the Institutional Review Board (IRB) of University of Cape Coast. Here the researcher provided the Board with the needed information for evaluation before the research could be approved. Upon their approval, the researcher then embarked on the above approved methods to obtain information for the study on the senior staff of UCC.

The researcher ensured to provide adequate information of the study to all individuals taking part in the research. Information sort from participants through any instrument used was solely to be used by the researcher to help gain understanding of individual respondents. Perceived stress scores of participants

taken at the beginning of the study were kept safe for onward comparison with the post-test scores to help assess the effectiveness of the intervention.

Respondents were informed of the duration for the experiment to help them avail themselves fully for the study. As a way of offering due respect to participants during the experiment, respondents who do not have a background in art and or do not appreciate art might have a sense of uneasiness when creative artworks for the first time was accorded the needed support to aid them fully participate in the creative art therapy session.

Chapter summary

Chapter took a look at methods used in gathering and processing data obtained for the study. The chapter covered data procedures such as research design, population, sampling procedure, data collection instrumentation, data collection procedure, data processing, analysis and ethical considerations necessary for the study.

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CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The study sought to examine the effectiveness of art therapy in helping to reduce the stress levels of stressed senior staff of UCC. A sample of 20 stressed senior staff of UCC were designated into either a control or experimental group –left to figure out ways of reducing their stress levels or taken through an art therapy session.

This chapter seeks to create an understanding to the analysis of the target samples background characteristic and reflect the impacts of the intervention used. The analysed data was grouped into two parts: socio-demographic distribution (preliminary analysis) and inferential (further analysis). Results of the study were discussed in relation to the purpose of study, research questions and hypotheses projected for the study, through the presentation of standard deviations, means, percentages, frequencies, and t-test tables. A pie chart, graph and tables were used to illustrate the findings of the analysis. With a statistical significance of 0.05, the t-tests and results were assessed.

Results

Demographic Distribution of Respondents

Data in Tables 3-9 presents the various components of respondents socio-demographic data to help understand their characteristics.

	rrequency	rereentage (70)
Gender		
Male	75	48.1
Female	80	51.3
No response	1	0.6
Age Group		3
.1-30	28	17.9
1-40	93	59.6
.1-50	34	21.8
51-60		0.6

Frequency

Percentage (%)

Table 3. Demographic Characteristics of Participants

Variable

Table 3 shows the gender and age distribution of the respondents. It is evident that 51.3% (80) of the respondents are females with the rest 48.1% (75) being males. It is also evident that the majority of the respondents (59.6%) fall within the ages of 31 - 40 age group and 21.8% of the respondents fall within the ages of 41 - 50 age group and 17.9% are also within the ages of 21 - 30 age group. This can further mean that most of the senior staff who agreed to take part in the study were within their youthful age.

Variable	Frequency	Percentage (%)
Marital Status		
Single	46	29.5
Widowed	6	3.8
Married	96	61.5
Divorced	8	5.1
Number of Children	eu 2	
0-2	126	80.8
3-4	25	16
5-6	2	1.3
No response	3	1.9
	0.00	

Table 4. Family details of Participants

Source: Field Survey, 2020

Considering the marital status of respondents, preliminary analysis shows that a majority of the respondents 96 (61.5%) are married, followed 46 (29.5%) of the respondents being single, while 8 (5.1%) and 6 (3.8%) of the respondents are divorced and widowed respectively.

Out of a total number of 156 respondents, it can be observed from Table 4 that 126 (approximately 81%) of the respondents have between 0-2 children and 25 (16%) have between 3-4 children, while just 2 (1.3%) have between 5-6 children.

Variable	Frequency	Percentage (%)
Academic Qualification	L	
MPhil	31	19.9
MFA/MBA/MPA	22	14.1
MA/M.ED./MSC	42	26.9
BA/B.ED./BSc	51	32.7
HND	Er un	4.5
No response	3	1.9
Source: Field Survey, 202	0	

Table 5. Academic Qualification of Participants

Analysis from the data in Table 5, shows that 51 (32.7%) of the respondents are first degree holders (BA, B.ED., BSC etc.), 64 (41.0) of the respondents being master's degree holders (MA, M.ED., MSC, MFA, MBA, MPA) whiles 7 (4.5%) are HND certificate holders. The information in Table 5 shows that most of the senior staffs have high qualifications.

Variable	Frequency	Percentage (%)	
Job Status			
Senior Staff	156	100	
Years of Working Exp	perience		
0-5	28	17.9	
6-10	56	35.9	
11-15	48	30.8	
16-20	15	9.6	
21-25	8	5.1	
>25		0.6	
ource: Field Survey, 20)20		

Table 6. Job status and Work Experience of Participants

Source: Field Survey, 2020

To help certify that all respondents belonged to the senior staff category, the researcher asked the respondents to verify their job status. Table 6 proves that all 156 were senior staff workers.

It is evident from Table 6 that a majority of the respondents 56 (35.9%) have 6 – 10 years of working experience in their various offices. This was closely followed by 48 (30.8%) of the respondents with 5 years of work experience, and 28 (18%) of them still within their first five working years. Interestingly, 24 respondents with a combined percentage of 15.3% have over 15 years of working experience in their related areas of specializations.

Variable	Frequency	Percentage (%)
Official Rank		
Chief Administrative Assistant/		
Chief Technician/ Chief Research	23	14.7
Assistant/ Chief Library Assistant.		
Principal Administrative Assistant/		
Principal Technician/ Teaching	57	36.5
Associate/ Principal Library	57	50.5
Assistant	-u	
Senior Administrative Assistant/	3	
Senior Technician/ Teaching	33	21.2
Assistant/ Senior Library Assistant		
Administrative Assistant/		
Technician/ Research Assistant/	42	26.9
Library Assistant		
No response	1	0.6
Duration of Rank		7
0-5 Years	103	66
6-10 Years	50	32.1
11-15Years		0.6
16-20Years	1	0.6
Above 20 Years	1	0.6

Table 7. Official Rank and Duration of Rank of Participants

In considering the official rank held by respondents, a majority of 57 (36.5%) respondents who participated in this study are Technician/ Teaching Associate/ Principal Library Assistant, followed by 42 (26.9%) Administrative Assistant/ Technician/ Research Assistant/ Library Assistant and 33 (21.2%) of the respondents are Senior Administrative Assistant/ Senior Technician/ Teaching Assistant / Senior Library Assistant. Lastly 23 (14.7%) are the Chief

Administrative Assistant/ Chief Technician/ Chief Research Assistant/ Chief Library Assistant categories.

A majority of 103 (66%) of the respondents have been at this current rank for at most 5years. Fifty (32.1%) have been at these ranks for 6 to 10 years whiles just 3 (1.8%) of the respondents have been at these ranks for 11 years and above. This implies that a reasonable number of the senior staff have quite a considerable amount of experience in their line of work so as to express views concerning stress level related to their duties.

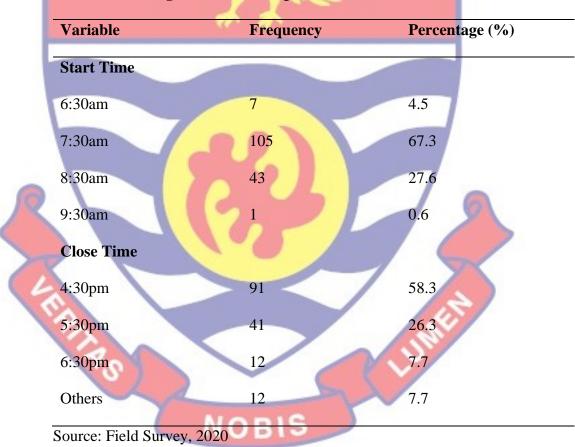
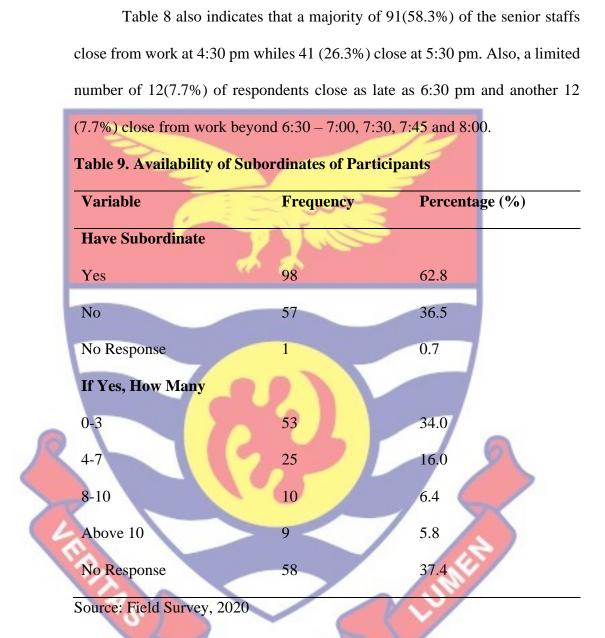


Table 8. Working hours of Participants

Table 8 indicates that 105 (67.3%) of the senior staffs start work at 7:30 am while 43 (27.6%) start work after 8:30 am, and just 7 (4.5%) of respondents start as early as 6:30 am. This act of early arrival to work could suggest the

senior staffs have pressing task to perform and would have to get to work early enough to deal with such duties.



Most of the respondents, 98 (62.8%) indicated that they have subordinates, while 57(36.5%) of the respondents stated that they do not have any. Only 1(0.7%) did not indicate if he or she worked with subordinates or not.

Out of the 98 respondents who indicated that they have subordinates 53(34%) have between 0-3, followed by 24 (16%) who have 4-7 workers to

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manage, 10 (6.4%) stated that they work with 8-10 subordinates and just 9 (5.8%) indicated they are managing above 10 subordinates.

Results from Research Questions

The following section presents results from the research questions generated for the study. Data on Tables 10-15 have been used to answer the

research questions generated for the study.

Research Question One: At what level of stress are the senior staff of UCC working?

Below is a table that explains a detailed description of stress scores of the senior staff and the frequencies by which they occurred among the sample tested. The table creates a clear picture of the stress ranges among the senior staff of UCC.

Scores	Frequency	Percent
12	5	3.2
13	2	1.3
16	4	2.6
18	12	7.7
19	1	0.6
20	15	9.6
21	23	14.7
22	درب 8	5.1
23	25	16.0
24	11	7.2
25	16	10.3
26	13	8.3
27	5	3.2
28	3	1.9
29		1.9
30	7	4.5
31	3	1.9
TOTAL	156	100

Table 10. Frequency of Stress Level of Respondents

The data in Table 10 gives us an understanding of the frequencies of stress scores among the sample, which clarifies the range of scores. Information provided as a parameter for the application of the PSS indicates that a score range of 0-11 was of low health concern, a score of 12-15 is seen as average health concern whiles scores ranging beyond 16 was of a high health concern (Mind Garden Inc., 2019). Out of the total sample of 156 senior staff, 7 (4.5%) respondents had scores which proved they had average health concerns in relation to stress. Whiles a collective sum of 97 (95.5%) respondents were found

within the categories of high and very high health concerns in relation to stress. This clearly suggests that the stress scores of the senior staff of UCC is beyond the normal stress operating level for functioning as a healthy human being.

In order to obtain the actual figures to help us understand the level of

stress at v	which th	ne senior s	staff of UCC	C work, the	mean str	ess scores of
respondent	ts were o	obtained to	help in this c	liscussion.	-	
Table 11.	Stress L	evel of Re	spondents	53		
	N	Range	Minimum	Maximum	Mean	Std.
	5		AL	\geq		Deviation
Total Score	156	30	12	31	22.63	4.0325
Source: Fi	ald Cum					

Source: Field Survey, 2020

The distribution of stress scores in Table 11 simply draws our attention to the basic ranges of respondents stress scores. The mean scores obtained from the data proves that the minimum score for the 156 senior staffs of UCC was 12 and the maximum was 31, while a mean value of 22.63 was attained with a standard deviation of 4.033. With a mean score of 22.63 which is higher than a score of 16.0 which is regarded as a score of high health concern, it can therefore be suggested that the senior staffs of UCC are working at a predominantly high level of stress.

Research Question Two: What are the symptoms of stress experienced by the senior staff of the University of Cape Coast?

To help gather information on stress symptoms of the senior staff of UCC a stress symptom form was provided to the 165 senior staff who partook

in the pre-test sample collection. Data in Table 12 is used to answer research question one.

			-	cy of Symp		
	Alwa ys	Once /	2-3 times	Once a week	Once a month	Never
		twice daily	per Week	1		
Symptoms	Perc ent (%)	Perc ent (%)	Percent (%)	Perce nt (%)	Percent (%)	Percent (%)
Headaches,	3.2	1.3	13.5	16	30.1	35.9
Tense muscles, sore neck and	5.2		13.5		50.1	55.9
back pains	1.3	7.7	16.7	12.8	<u>24.</u> 4	37.2
Fatigue	8.3	11.5	18.6	19.2	22.4	19.9
Anxiety, worry, fears/frightfulnes						
S	12.2	2.6	7.1	9	34	35.3
Difficulty falling asleep	13.5	3.8	7.7	7.7	23.7	43.6
Easily angered	12.2	8.3	3.2	11.5	19.2	45.5
Sleeplessness/						
restlessness	10.9	0	9	10.9	29.5	39.7
Periodic moments of				-/	X	
anger/ hostility	3.2	4.5	10.9	3.2	37.8	40.4
Boredom, depression	7.1	9.6	4.5	2.6	26.9	49.4
Eating too much or too little	5.8	7.1	5.8	12.8	19.2	48.7
Diarrhoea, gas concentration	N	ОВ	15	5		
(Stomach), constipation	0	0.6	5.1	8.3	32.1	53.8
Restlessness	5.1	1.3	8.3	12.2	22.4	50.6

Table 12. Symptoms of Stress and Frequency of Symptoms
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Source: Field Survey, 2020

Table 12 summarizes the symptoms of stress and the frequency with which they occur among the sample tested. From the figures in Table 17, it can be observed that 13.5% always have difficulty falling asleep, 12.2% always experience some amount of anxiety, worry, fears or frightfulness, 12.2% confirm they are always easily angered, and 10.9% always feel restless or sleepless. Again 11.5% of senior staffs made it clear that they once or twice in a day have fatigue, while just 9.6% experience boredom and depression once or twice in a day. Other symptoms experienced by senior staffs for just 2-3 times in a week include fatigue (18.6%), tensed muscles, sore neck, back pains (16.7%) periodic moments of anger and hostility (10.9%).

As indicated in the last two boldened columns, it is clear from the table that the senior staff of UCC rarely experienced symptoms such as headaches (35.9%), Eating too much or too little (48.7%), diarrhoea, gas concentration in the stomach or constipation (53.8%), restlessness or itching (50.6%). This is not to say that the above listed symptoms are not experienced at all by this group of individuals, but that a greater number of staff do not face these symptoms. Thus, a majority of the senior staff of UCC have a very low rate of exposure to the above listed symptoms.

Research Question Three: What are the causes of stress experienced by the senior staff of the University of Cape Coast?

To gain understanding about the various aspects of life that tend to have a negative toll on the senior staff of UCC, the researcher asked the respondents to indicate the most likely aspect of life from a range of lifestyle categories that they perceived as having the greatest influence on their stress levels.

Aspects of Life	Frequency	Percent
Moral	4	2.5
Financial	82	52.5
Religious	5	3.3
Domestics	29	18.5
Personal	21	13.4
Social	11	7.2
Academic	2	1.3
No Response	2,2	1.3
ΓΟΤΑL	156	100.0

 Table 13. Aspect of Life that Causes More Stress

Source: Field Survey, 2020

Table 13 informs us of the distribution of areas of life that tend to impact stress on the senior staff of UCC. It can be seen that the aspect of life that causes more stress to respondents in this study is the area of finance. Thus, with and outstanding mark of 52.5% the finances of this group of people tend to immensely affect their stress levels, followed by domestics and personal issues which accounted for 18.5% and 13.4% of stress faced by the senior staff. Also, the aspect of life that causes the least stress to respondents is the aspect of academics (1.3%).

Research Question Four: To what extent did creative art therapy reduce stress among the experimental group?

To gain a broader understanding on the extent to which stress levels of both groups had been reduced, the researcher conducted a paired samples test was conducted on the pre and post-test stress scores of the two groups.

Table 14. Descriptive Statistics of Groups

Group	Minimum Score	Maximum Score	Mean Score	Std. Deviation
Mean Post-Test	18.00	31.00	23.9000	3.69534
Stress Scores of Control Group				
Mean Post-Test	12.00	25.00	20.3000	4.00139
Stress Scores of			-	
Experimental Group	20	- ec		

Source: Field Survey, 2020

Table 14 presents us with simple descriptive statistics on the post-test results from the study sample. The mean score obtained for the control group was 23.9000, while that of the experimental group was 20.3000. Surprisingly, the intervals between the minimum and maximum scores for both groups are equal, yet the standard deviation results for the control was 3.69534 and 4.00139 for the experimental. It can therefore be identified that descriptive results obtain generally prove lower results for the experimental group as compared to the control group.

Though generally stress levels of respondents were comparatively higher than the normal stress levels, the above suggests that the effect of the intervention made some positive impact on the experimental sample as compared to the control group that was not taken through creative art therapy. It can therefore be stated that creative art therapy made a slight influence on stress levels of the experimental group.

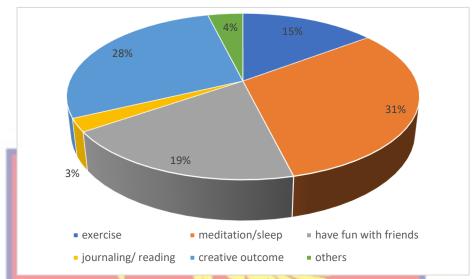


An overall look at results from the test conducted clearly show the differences in outcomes from the two groups. With .40000, the control group proved to have a paired mean higher than the experimental group which had a paired mean of -2.60000. Also, with Sig values of .807 and .194 obtained from the control and experimental groups respectively, it is clear that in all cases, the control group had results that depict that they had higher stress levels as compared to the experimental group.

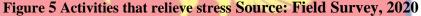
Though values obtained indicate that the treatment might not have worked on the experimental group, it is worth noting that the feedback from participants proved otherwise – see participant reviews under the heading 'General Observations and Response from Therapy Participants'. Also, preliminary scores of participants were extremely high and therefore, the tendency for stress levels of respondents to reduce tremendously would take a considerable amount of time to reach the average and low health concerns range. **Research Question Five:** What activities do the senior staff of UCC use as stress relief measures?

To help find out the methods by which the senior staff of UCC manage their perceived stress, the researcher created an additional question on the PSS to solicit initiatives respondents took to help control their stress levels.

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Stress Relieving Activities



From figure 5, it is evident that a majority of the respondents (31%) involve themselves in various forms of meditation or sleeping to help them ease their stress. 28% of the respondents undertake various forms of creative activities, 19% have fun with friends and 15% of the respondents, exercise to relieve stress. The least activity undertaken by respondents to relieve is journaling or reading which accounted for 3% of the responses by senior staff of UCC. It can therefore be projected that the senior staff of UCC mostly engage in activities such as meditation or sleeping, creative activities, having fun with friends and exercising to help control their stress.

Results From Research Hypotheses

The following sections present results from the hypotheses generated for the study. Data in Tables 16-19 have been projected to help justify hypotheses generated for the study.

Research Hypothesis One:

 H_01 : There is no significant difference in the stress levels of senior staff of UCC and the normal human stress level.

Hypothesis one sought to measure the overall stress score levels of the senior staff of UCC and find out if the levels of stress at which the senior staff of UCC are operating are within the normal levels – low to average health concern. To help arrive at any conclusive result, the researcher used a one sample t-test to help find the mean stress scores of respondents in relation to the normal stress score.

 Table 16. One Sample T-test Comparing the Mean Stress Score of

 Respondents to the Normal Stress Score



From Table 16, it is evident that the test is significant with the p-value 0.000 < 0.05, this means that we can conveniently reject the hypothesis and conclude that the stress level of senior staff of UCC is higher than the normal human stress level at 5% level of significance. As projected earlier, the level of stress deemed as normal and of no health concern ranges from 0-15, (Mind

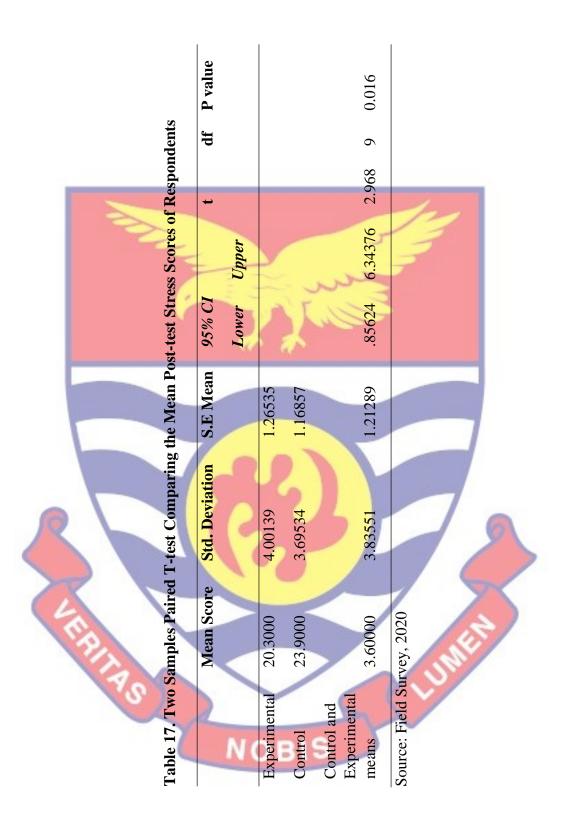
Garden Inc., 2019), yet with a mean difference of 22.62821, a greater number of the senior staff of UCC had their PSS score above 16.

Research Hypothesis Two:

H₀2: There is no significant difference in the overall mean post-test stress scores of respondents of the control and the experimental group.

Having conducted the intervention on the experimental group, the researcher found out that there was a need to evaluate the mean scores of both the experimental and control groups. A two sample paired t-test was used to compare the means of the post stress scores between the control group and the experimental group for this study at 5% level of significance.





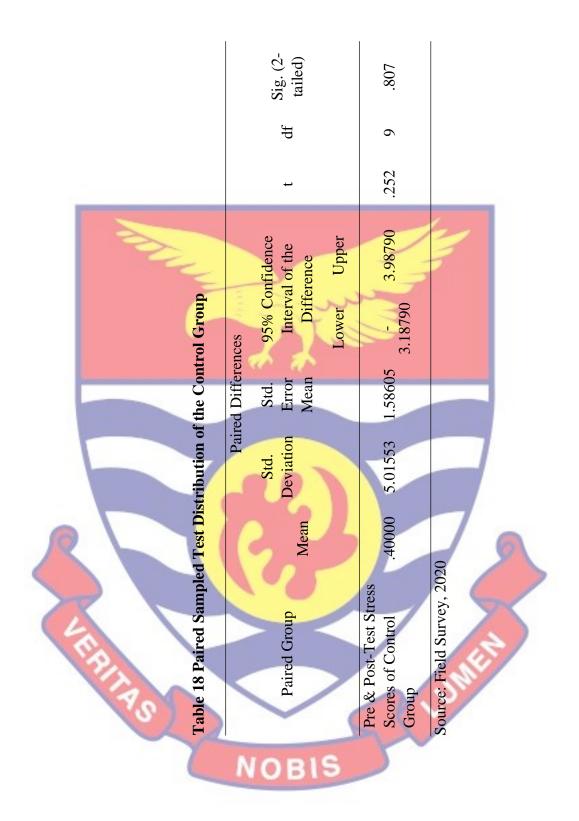
Outcomes from Table 17 suggest that the test result is insignificant since the p value (0.016) > 0.05. This means that we can conveniently say that there is no significant difference in the mean post-test stress scores between respondents of the control and the experimental group that received the treatment.

Research Hypothesis Three:

H₀3: There is no significant difference in the mean pre-test and post-test stress scores of respondents of the control group.

This section seeks to compare the mean pre and post-test stress scores of the control group of the senior staff of UCC.





Results from Table 18 indicate a paired mean of .40000 for the control group with significance value of .807. Since the Sig value .807 > 0.05, we fail to reject the null hypothesis. This means that there is no significant difference in the mean pre-test and post-test stress scores of respondents of the control group, which makes it clear that the control group had results that depict that

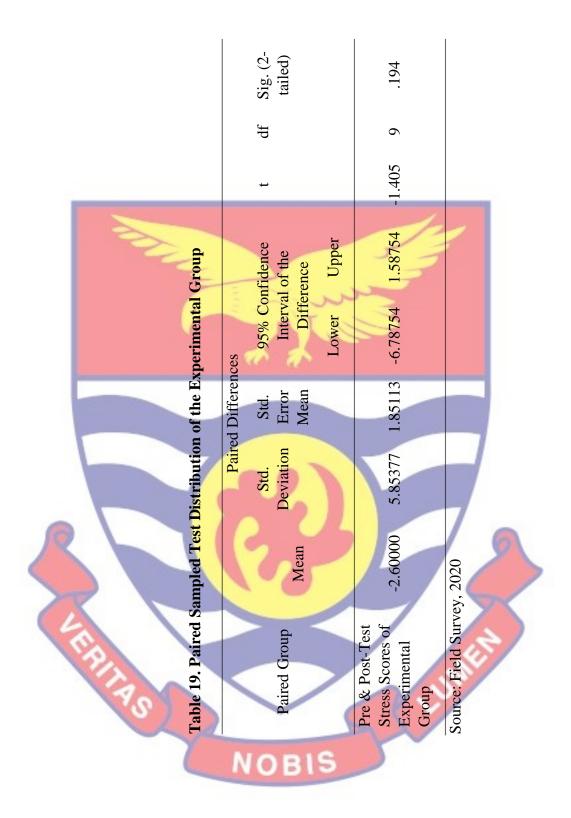
they had high stress levels.

Research Hypothesis Four:

H₀4: There is no significant difference in the mean pre-test and post-test stress scores of respondents of the experimental group.

This section attempts to compare the means of the pre-test and post-test stress scores of the experimental group of the senior staff of UCC.





Information from Table 19 proves that with a paired mean of -2.60000 and a Sig values of .194 obtained from the experimental groups, stress levels are high. With a Sig value .194 > 0.05, we can conclude that there is no significant difference in the mean pre-test and post-test stress scores of respondents of the experimental group. This could be due to the initial scores

of participants.

General Observations and Response from Therapy Participants

It is worth noting that with much motivation and freedom of expression, the experimental participants were able to explore the creativity within them which facilitated their accomplishments of tasks and relaxed them from stress. Testimonies from respondents after the treatment make it clear that the enthusiasm and desire to make creative artworks during the treatment sessions have positively impacted respondents who experienced the art therapy sessions

It was interesting to note that respondents who came for the second session mostly took inspiration from the works of those in the afternoon session. This manifested in their early arrival for CAT sessions after seeing pictures of their colleagues posted on the group page, and also the quality of works produced during the second therapy session. Also, when not sure of what materials to apply to their artworks, individuals would ask other group respondents for opinions to help complete their works. This is suggestive of the fact that they wanted to create something appealing, not just to themselves, but also appealing to others.

Some facts from the CATE pre-therapy session forms worth noting include the fact that: -

- a. The level of creative art training or formal education of the group was very low. Thus one (1) person had some form of training in art in the secondary school, eight (8) had some basic education in art at the primary and middle school levels and one (1) person never had any form of training in art. This meant that the researcher needed to offer much assistance to participants during the treatment sessions since the level of art training was minimal.
- b. Surprisingly all participants stated that they would embrace any offer if they had the opportunity to freely study or be trained in any creative art form. This suggested that respondents were willing and ready to be involved in artistic activities despite their low level of knowledge and training in the field of art. This was very encouraging because for the treatment to be free from inhibition, meaningful and effective, members needed to exhibit commitment to activities and willingness to participate in the creation of artworks (Malchiodi, 2003; Edwards, 2004; Rubin, 2005).
- c. Despite the low level of art training in the past, eight (8) people out of ten (10) indicated a high level of appreciation for creative arts.
- d. Having shown interest in the willingness to join in such a free opportunity to engage in artistic creations, some common art forms selected by participants included bead making, textiles painting, designing, interior decoration, fashion, and sculpture. Reasons for opting the above listed art form were, "I can enforce my imaginations and emotions"; "It helps me get great ways to exercise my brain and keep it healthy"; "It calms me when I meet people doing it"; "A good interior decoration tranquilises me"; and that "A person's sense of fashion influences my relationship with him or her".

e. Artworks made through graphic design stood out as the most preferred art form that attracted participants the most.

Some important information from the CATE post-therapy section form worth reflecting on include the following:

- a. All participants stated that they were happy and satisfied with their artworks.
- b. With reference to grading their own works, half of them claimed they would award themselves 60-70% score, while the other half projected an 80-100% score for their works after the production sessions.
- c. Six (6) out of the ten (10) participants made it clear that their new experience with creative art production has tremendously increased their love for art, and that they had gained 80-100% positive inclination towards creative art.
- d. When asked 'How would you explain your experience when applying materials or using tools?', these were some responses participants gave.

Materials: - " It's amazing how simple materials such as the foam sheet, normal beads, paper, plastics spoons and plastic bottles could be used to make extraordinary things, art is cool"; "Any material can be used to create something, be smart with your imaginations"; "With a wide range of material, it was a bit confusing at times as I sometimes thought of using different combination"; "The materials I used were durable and they contributed to the total attractiveness of my artworks"; "I improved as the days went by"; and that "The materials help you to get the actual work you want, for beautification of your art".

ii. *Tools*: - "For the tools, normal everyday tools such as scissors, needles are being used to produce simple but eye-catching art"; "when using the right tools, one can achieve a lot. And the work becomes easy and it's

alone efficiently"; "I improve day by day"; "Using the right tools helped me to work efficiently and finish my work on time"; and "Usage was somehow challenging but with time, I was able to sail through".

- e. Personal views from participants about their perception on skills gained during the practical sessions included comments like, "Can be applied conveniently with little materials at hand, only apply your imagination"; "I am now good at choosing and combining colours to create a beautiful art"; "Refreshing"; "Sometimes interesting but gives me much confidence to press on"; "I have gained so much"; and "After the session, I believe I can create or do the art without supervision and create more artwork".
- f. In answering the question on how they would explain their general experience through the treatment sessions, this is what participants had to say: "My general impression about art has changed as in I now appreciate art and have developed a new sense of art"; "It has been a wonderful experience. At first, it was scary but after the first meeting, I knew I could do any artwork."; "It has been good, one needs to take time off busy schedules and distress at every slight opportunity"; "The sessions in creative art relieved my mind off major issues as I engage in the art"; "I can now confidently say that I am very artistic"; and that "It was a great experience. I was able to learn and release stress, and I can now do a lot of things when I am stressed up".
- g. Finally, when participants were asked to provide any suggestions on how art could be promoted or made more attractive in our educational structure and Ghana as a whole, they gave these thoughtful ideas. "Art in schools hasn't been much appreciated by students mostly because students perceive arts to be difficult but with these sessions, it has opened a new idea to art, and I

believe simple art being taught at the junior levels (primary schools) so many people can or will have a different view of it"; "Creative arts should be included in the curriculum to the highest educational system. It should be promoted among the youth so they don't see it as a last resort when all other opportunities have failed."; "It should be introduced as a compulsory course for all pupils and a compulsory course for teachers on monthly or quarterly basis."; "I suggest that before a student completes a level (say, J.H.S.), the individual must do a couple of artwork before the individual gets his or her certificate."; "It should be used as a fun way to get the students thinking aside the box to bring something new. It can also be used to promote curiosity ..., to conduct research to find an unknown answer or try out new techniques to get new ideas"; "Yes, arts should be started with the children in the primary schools, so that by the time they grow up they would have developed great interest in arts."; and "I suggest art or music therapy must be included in list of suggestions and activities in working environment.".

Discussions

This section attempts to further discuss and explain some outcomes of analysis from the study, to draw a clear understanding on the implementation of the above results. Discussions were made in close association with the research questions and hypotheses generated for the study.

The level of stress in which the senior staff of UCC work

Results from the analysis revealed that all the respondents had PSS scores that were high. Thus, with a minimum score of 12 and a maximum score of 31, the senior staff of UCC have a reasonably high level of stress as compared to the acceptable levels of stress said to be normal or of no or low health

concerns to mankind. According to the criteria set for the use of the PSS, the higher the PSS score, the higher the level of stress experienced by respondents (Cohen, Kamarack, & Mermelstein, 1983). Thus, any score below 16 is to be considered as low (0-11), average (12-15), whilst scores ranging from 16 -20 are considered as scores of high health concern. And any score above 21 is observed as a very high health concern (Mind Garden Inc., 2019). With no doubt, this result clearly indicates that the stress scores of the senior staff of UCC is beyond the normal stress operating level for functioning as a healthy human being.

It is no secret that stress of a high rate affects the functioning of mankind, though not everyone expressed it in the same manner. Experts in stress studies continue to explain the many effects of stress on humans in relation to their personal, psychological, social, occupational life (Melgosa, 2006; Stangor & Walinga, 2014). Even though the stress phenomenon exists as part of our lives, we must find ways of managing with it, in order to avert disorders such as depression, hypertension, reduction in sexual activity, skin disorders, peptic ulcers, stroke, menstrual difficulties, indigestion among others (Bernstein, Clarke-Stewart, Roy, Penner, 2003; Larkin, 2005; Scott, 2010).

Lahey (2012) explains stress as "any event that strains or exceeds an individual's ability to cope" (p.425), a factor that ought to be eliminated in any working environment. Winfield (2000) projects that occupational stress is high in the field of teaching and non-teaching staff of universities, due to the high demands and level of competencies expected of academic staff worldwide. A recent study on the effects of stress on the output of university staff indicated that stress could impede the advancement of the worker and the institution as a

whole. The research focused on studying the issue of job stress and its effect on some human components of human resource development. Ofosuhene (2018) in this study found out that the major source of stress for the staff of the University of Cape Coast was work demand, work-life conflict and work overload.

Findings from this study could suggest that the senior staff of UCC are overly stretched beyond their capacities. Possibly if the workload could be shared with an extra hand it could be of interest to the senior staff of UCC as well as the institution, since the staff would hereby be operating at an appreciable level of stress which would yield a greater amount of productivity for the university.

Symptoms of stress experienced by the senior staff of the University of Cape Coast

Results from the stress symptoms forms for this study indicated that the senior staff of UCC frequently experienced symptoms such as difficulty falling asleep, fatigue, anxiety, worry, fears, or frightfulness, easily angered, hostility, tensed muscles, sore neck, and back pains, restlessness or sleeplessness as well as boredom and depression. Obese (2010) in a study on workers of the University of Cape Coast found out that problems like backaches, eye injury, chest pains, repetitive strain or injury as well as stress were frequently experienced by UCC workers – senior respondents, senior staff and junior staff. According to study findings from Chandola, Heraclides, & Kumari (2009) some of the notable 'psycho-social indicators of workplace stress include problems with personal and professional relationships, insomnia, headaches, anxiety, panic attacks, and depression'.

It is worth noting that stress as discussed earlier, is not experienced in the same way by everybody (Willis, 2007), while Scott (2010) asserts that these differences in the expressions and adaption of stress is due to the unique physical and personality traits we all possess as individuals. It is therefore necessary to note that the impacts of stress can be felt in many ways depending on its cause as well as how the individual handles it (Towner,1998). As suggested by the transactional theory of stress and coping, the individuals' evaluation of the impact of the external stressor as well as the individual's response to the stressor determines whether a cyclic stress reaction develops. Thus, the individual's 'cognitive, affective, physiological, psychological, neurological and adaptive responses or systems interact with the environment to conceive the event as stressful or not' (Stangor & Walinga, 2014, p. 689).

Causes of stress experienced by the senior staff of the University of Cape Coast

Findings from this study make it clear that the main cause of stress to the senior staff of UCC was largely centred on issues on their finances. Activities related to their domestic life as well as personal lifestyle issues also came up as high concerns that have a great deal of effect on this group of workers. This finding is consistent with assertion made by Cope (2003). In discussing extra organisational sources of stress, the writer indicates that 'family issues, life crises, financial difficulties, conflict of personal beliefs with those of the organisation and conflict of organisational and family demands' were external occupational stressors that affect the individuals' ability to function well at work (p. 54).

In a study on occupational stress on university workers conducted by Winefield, & Jarrett, monetary instability of the staff was discovered as a stressor. It was identified that workers whose duties span within both teaching and research responsibilities reported an increased pressure which was resulting from issues such as funding cuts to universities, a decline in facilities and support for both teaching and research, as well as resulting in heavier teaching loads and greater difficulty in securing research funds (Winefield, & Jarrett, 2001).

With a greater percentage (61%) of UCC senior staff workers having at least a second degree, it was understandable that only 1.2% of the sample had academics as an aspect of life that causes them stress. This then supports the fact that this group of workers have already attained the necessities of education to help in their various professional duties and hereby are not facing stress that comes with academic attainment as suggested by American Psychological Association (2012) and U.S. Chamber of Commers Foundation (2012). According to the key finding of these two reports, since the pursuit of higher education has become necessary for economic security and 'leads to higher earnings throughout life', the millennials (18 – 32 years) used in their study happened to look for means to attain greater height in education to help reach a satisfactory economic expectation. Fortunately, the sample used in this present study belongs to the Gen Xers (33 – 46 years) who in the above-mentioned research were also not seen to have stress concerns arising from educational pursuits.

Winefield, Gillespie, Stough, Dua, Hapuarachchi, & Boyd, (2003) in another study conducted on occupational stress in Australian university staff, identified the effects of finances on workers stress and output. This study was focused primarily investing occupational stress on 9000 university staffs from 17 universities. Among other findings relation to occupational stress, the researchers discovered that financial difficulties faced by Australian university workers imposed serious consequences for the psychological well-being of their staffs, most especially, the academic staff. It is therefore, clear that issues of finances if not well controlled and resolved have a tendency of impeding the inner as well as outer motivations needed for workers to get their duties properly achieved.

The extent to which creative art therapy reduce stress among the experimental group

Results from the analysis indicate that though there was an insignificant reduction in the level of stress among respondents of the experimental group, evaluations conducted with the experimental group proved to yield positive inputs from respondents. Findings hereby might not be said to have achieved the high quality stress relieve in participants as projected by most studies. For instance, Curl and Forks in 2008 worked on a study that tried to assess stress reduction as a function of artistic creation and cognitive focus. This research explored four (4) treatment groups, 2 groups involved in negative-focus condition applying 2 different art forms and 2 groups involved in positive-focus condition producing 2 varied art forms. The results of the study indicated that the two groups in the positive-focused demonstrated a significant decrease in stress, whiles those on the negative-focused group came out with a rather increased level of stress (p < .05). The researchers concluded that artistic activity had no influence or interaction with cognitive focus.

Another research conducted by Levy (2011) indicted that the positive outcomes of the art therapy sessions included an increase in the participants expression of feelings, development of skills to manage anger, stress and anxiety. Findings provided knowledge of art therapy directives that can be useful in the treatment of anxiety disorders, statistical measures that can be used in future studies when assessing levels of anxiety, and evidence for the use of art therapy in the treatment of anxiety (Levy, 2011).

Another research conducted in this field in relation to stress was a measure on what extent artistic task as against non-artistic task could reduce stress. Abbott, Shanahan and Neufeld (2013) experimented whether activity type (artistic or non-artistic) or coping approach (active or passive) would better deal with stress. By means of a 2 x 2 factorial design, participants were placed in one of the resultants four (4) groups – active artistic, passive artistic, active non-artistic and passive non-artistic. At the end of the study, it was clear participant engaged in all artistic activities produced significantly greater stress reduction than corresponding non-artistic activities. This finding according to the researchers, supports the "potential therapeutic effectiveness of specifically artistic tasks for stress reduction" (Abbott, Shanahan, & Neufeld, 2013, p.71).

Activities the senior staff of UCC use as stress relief measures

The result from the study makes it clear that the senior staff of UCC in order to manage stress, turn to activities such as meditation, exercising, sleeping, creative activities, journaling or reading, having fun with friend among others. It has already been established that stress affects individuals differently, and due to the varies way in which we tend to accommodate stress,

it is worth stating that we all tend to also have different ways of dealing with or managing the effects of stress we face as individuals.

Segal, Smith, Robinson and Segal (2018), state that there are diverse ways through which stress could be managed in order to regain control over one's drive to pursue a task. Some measures they list included art therapy, exercise, yoga, socialization, taking holidays or vacations as well as quality family time. These have been described as ways of controlling or reducing stress. Other writers also make mention of similar stress relief activities such as knowing ones limits, reviewing one's lifestyle, applying relaxation techniques, building social bonds with family and friends, adopting a healthy eating habit (dieting), being cautious of stress related behaviour (drinking, smoking), exercising one's body, making time to rest, practicing mindful mediation, getting some rest (sleep) and not being too hard on oneself; all help reduce the impacts of stress (Hass-Cohen and Carr, 2008; Mental Health Foundation, 2018).

Stress levels of senior staff members of UCC and the normal human stress level

Results from this study project the fact that the senior staff of UCC were working with a stress level higher than the parameters set as healthy stress levels as suggested by the originators of the PSS. The assessment of the PSS scores is interpreted as follows: 0-7 = very low health concern; 8 - 11 = low health concern; 12 - 15 = average health concerns; 16 - 20 = high health concern; 21^+ = very high health concern (Cohen, Kamarack, & Mermelstein, 1983). The above parameter makes it clear that 'the higher the score, the higher the stress

level' of the individual, therefore, with a mean difference of 22.62821, this group of university workers can be said to be operating at a high stress level.

Results from the analysis indicates that the senior staff of UCC are working under a high level of stress. This finding appears to be a situation that has been found in many studies as a true reflection of workers in academic institutions. For instance, Winefield, & Jarrett (2001) found out in a study on occupational stress on university staff that the psychological stress levels of the study sample were of high levels even though workers trait anxiety and job satisfaction were normal.

Winefield, Gillespie, Stough, Dua, Hapuarachchi, and Boyd, (2003) conducted a research on nearly 9000 respondents from 17 universities that was focused on occupational stress in Australian university staff. It was discovered that in relation to worker-stress levels, academic staff were generally worse off than general staff, and staff in newer universities were worse off than those in older universities.

Adjei (2009); Agbemafle, (2010); Obese (2010) and Ofosuhene, (2018) who all conducted local research on the effects of occupational stress on university workers, also project this situation as a mundane occurrence in their various study areas in Ghana, namely Kwame Nkrumah University of Science and Technology (KNUST) and University of Cape Coast (UCC). This condition phenomenon if not put under control and proper assessment, might affect university workers worldwide.

Differences in outcomes between respondents of the control and the experimental group

As indicated by the results of the paired means of .40000 from the stress scores of the control group, and with a Sig value of .807 > alpha value (0.05), it is suggested that with a significance level of 5%, there was no significant difference between the mean pre and post-test stress scores of the senior staff of UCC in the control group. Likewise, with a paired means of -2.60000 from the stress scores of the experimental group, and with a Sig value of .194 > 0.05, it could also be conveniently stated that no significant difference exists at 5% significance level.

An experimental study was conducted by Visnola, Sprūdža, Baķe and Piķe (2010), on the effectiveness of art therapy on stress and anxiety of employees. Like this current study conducted on the senior staff of UCC, their study did not also take the control group through any intervention all through the study, whiles the experimental group on the other hand, was taken through a "nine themed group sessions of two hours each". Participants were engaged nine (9) times in three (3) different packages. Results from the experiment proved that the experimental group had a mean of (160.2 ± 3.2) which was said to be significantly lower (P < 0.05) than that obtained from the control group (172.7 ± 3.3) (Visnola, Sprūdža, Baķe & Piķe, 2010). It was therefore, concluded that the application of art therapy on stress and anxiety levels of employees used in the study was effective.

Similarly, it is clear that the control group which did not have any form of intervention in managing stress also had a higher significant level than the experimental group. Though the experimental group had a much lower

significant level as compared to the control group, it cannot be overlooked that the level of significance was still above the accepted alpha value of 0.05. This could be attributed to the generally high stress scores of the senior staff of UCC. Considering the extent to which the workers are stressed, a much extensive therapy session might be needed to help further ease their high stress levels.

Summary of Results

- 1. The senior staff of UCC face many stress symptoms.
- 2. Stress levels of the senior staff of UCC are mostly caused by issues related to their finances, domestic activities, and personal lives.
- 3. The senior staff of UCC are operating at a high level of stress.
- 4. Considering the high levels of stress of the senior staff of UCC, the application of art therapy made a considerable impact on the senior staff who partook in the treatment.
- 5. Meditation, creative activities, and fun activities with friends happen to be the stress relief activities taken by the senior staff of UCC.
- 6. The overall stress levels obtained indicated that there is a significant difference in the stress levels of senior staff of UCC in relation to the normal or healthy functioning human stress level.
 - There is no significant difference in the overall mean post-test stress scores between respondents of the control and the experimental group due to the abnormally high stress levels of all participants.
- 8. There is no significant difference in the mean pre-test and post-test stress scores of respondents of the control group.

9. There is no significant difference in the mean pre-test and post-test stress scores of respondents of the experimental group, resulting from the already high levels of respondents.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this chapter is to summarize the research findings, draw logical conclusions from the results, propose some recommendations, discuss some implications of the study to counselling and make suggestions for further research.

Summary

The main intention of the study was to investigate the extent to which creative art therapy could be used as an effective measure for coping with stress among the senior staff of the University of Cape Coast. To achieve this objective, the study intended to assess the stress levels of the senior staff of the University of Cape Coast and sort out highly stress staff for the study; explore the effectiveness of 8-10 sessions creative art therapy session on their stress levels; assess the stress levels of the senior staff after the intervention to ascertain if there will be a fall in their stress levels; and evaluate pre and post stress levels of participants to check for the effectiveness of the intervention.

To help in gathering necessary information to arrive at the focus of the study, the researcher provided the senior staff of UCC with perceived stress score (PSS) forms to ascertain their stress levels. A sample of twenty (20) participants was purposively sampled from the 156 respondents who were obtained from the population using the convenience sampling. From the twenty (20) participants, ten (10) respondents were randomly selected for the control group and ten (10) for the experimental group. To help understand the level of knowledge and skills respondents of the experimental group possessed, the

researcher provided the respondents a creative art therapy experience questionnaire before and after the eight (8) sessions treatment. A week after the treatment, both groups were provided with the PSS forms to help evaluate the difference in stress levels between the two groups. Results from the study were analysed using the Statistical Product and Service Solution (SPSS, version 21) software. Results were assessed and the presentation of results were represented in standard deviations, means, percentages, frequencies, and t-tests with a statistical significance of 0.05.

Key Findings

With a focus on the research question and the hypotheses generated for the research, the following salient findings were made:

Stress among the senior staff of UCC is mostly caused by issues related to their finances, domestic activities and personal lives. This means stress experienced by the senior staff are both externally and internally motivated. For this reason, when these challenges are duly taken care of, stress levels of the senior staff of UCC could be reduced.

The overall stress levels obtained indicated that there is a significant difference in the stress levels of senior staff of UCC in relation to the normal or healthy functioning human stress level. This suggests that the stress levels of the senior staff are abnormally high. Thus, the senior staff of UCC are operating at a high level of stress. Though this might appear as a norm for the respondents used, if workers continue to work under this high level of stress, they might break down.

Meditation, creative activities and fun activities with friends happen to be the stress relief activities taken by the senior staff of UCC. This implies that

the senior staff of UCC have tried some other ways to reduce their stress over the years but might not have attained a long lasting relief from this phenomenon.

The senior staff of UCC were positively affected by the application of art therapy. This was evident as the senior staff of UCC who participated in the treatment enjoyed their experiences during the art therapy sessions. Though a fair number of participants expressed that their appreciation for art was minimal before the treatment, at the end of eight (8) sessions all respondents expressed an increase in their love and participation for artworks.

Art therapy was able to reduce the high stress levels of the senior staff of UCC. This implies that despite the constant demands and workload of this group of university workers, the time spent during treatment session had positive impacts on respondents of the experimental group.

Conclusions

The following conclusions have been made after considerations from the information above:

The application of some creative art forms as a therapeutic measure on some selected stressed senior staff of UCC over eight (8) sessions provided participants with some amount of stress relief as they engaged in the creation of different craft works. After comparing the level of stress reduction of therapy participants to the control group respondents, it was evident that art therapy influenced the stress levels of the experimental group.

Stress levels of the senior staff of UCC are above the average healthy functioning levels as designated by the PSS. For this reason, the study failed to conveniently reject the null hypothesis and concludes that the stress level of senior staff of UCC is higher than the normal human stress level at 5% level of

significance. Nevertheless, the senior staff seem to be in charge of roles and task assigned to them and are able to work without experiencing many recognised symptoms of stress.

Due to the professional and technical qualifications of the senior staff of UCC, the increased years of service as well as the willingness to diligently meet the ever-growing demands of academic institutions, it appears that the senior staff of UCC are experiencing stress of the same levels without any affiliation to any grounds.

Studies on art therapy and stress including this current study have proven to be effective, impactful, and having a longer lasting effect on participants who go through art therapy. Testimonies from respondents after the treatment make it clear that the enthusiasm and desire to make creative artworks during the treatment sessions have positively impacted respondents who experienced the art therapy sessions.

The above projection makes it clear that if the senior staff of UCC would periodically make time to engage in any form of creative, enthusiastic and nonacademic activity such as creative art therapy, the likelihood to have stress reduced over a period of time would be more evident in their lives. For this reason, the university could help by creating avenues for workers to have interactive sessions and innovative platforms to help them creatively unleash the skills through any artistic way to help them gain a basic satisfaction that would in turn lead to a fulfilment and subsequent relieve from stress.

Implications for Counselling

With the above findings and discussions made from the study, some implications that need attention in the counselling field include the following:

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- 1. Counsellors working in academic institutions should be preemptive in providing occupational stress related information to staff. This would help them not downplay the least indicators of stress and related repercussions that might crop up and later affect workers input on the job.
- 2. Counsellors should explore creative, more involving, and leisure or scholarly-free ways to help academic worker relax from their academically mundane ways of going about things. A little 'detour' from the occupational routine would help relax workers from the stress they face.
- 3. An introduction of creative art therapy into the counselling setting as a therapeutic means of relieving stress could help bring clients out to express themselves better and relax them on their own personal terms. Thus, if counsellors would explore art therapy, it would help create a welcoming atmosphere for clients as done with counselling games. This practice could conveniently help stressed clients ease the strains from their working environment.

Since art is not a well-known therapy practice in the country, counsellors should delve more into such an area of therapy for counselling. With this, counsellors would better help clients with different levels of challenges, since art therapy touches the cognitive, emotional, and behavioural attributes of every individual.

Implications for University Management

Some considerations for human resource personnel's and the university management to help control stress among workers include the following:

- Management bodies in universities should organize periodical talks and programmes aimed at creating awareness of stress among university staff and strategies of coping with it. With this in place, workers would be more conscious of the things that they tend to experience when stressed in order to control the impact it has on the individual.
- 2. University managements could establish avenues for workers to have interactive sessions and innovative platforms to help their staff creatively unleash the skills through any artistic means. For example, calling for designs of university's paraphernalia for upcoming programmes and special occasions. Thus, by introducing some form of leisure activities into the university 's academic calendar, such platforms could help reduce stress level of the workers regularly and help them gain a basic satisfaction that would in turn, lead to a fulfilment and subsequent relieve from stress.

3. Management bodies in universities could put up a periodical system that would be used for monitoring working attitude of staff. This would go a long way to help control the high rate of stress and hereby eliminate any conditions caused by stress.

Recommendations

In connection with the findings and conclusions, the following recommendations were made.

To create an awareness of serious health implications of stress among workers, the researcher recommend that the human resource and counselling sections of the University of Cape Coast should work together to educate workers on stress. This would help prevent any extreme effects of stress on

workers. If workers should take the effects of stress on their health and total wellbeing seriously, stress can be naturally reduced. Thus, this practice could have a positive impact on the performance of workers and hereby maintain or even increase the individuals input to a given task as well as increase output.

The University's Counselling Centre should establish recreative programmes within the centre to help awaken true inner fulfilment and enhance a therapeutic effect on worker-satisfaction leading to a reasonable relieve from stress.

Some sort of periodic creative experience measures should be introduced to senior staff workers, and all other workers of the university as it could help reduce stress level of these workers constantly.

It is highly recommended that the university in collaboration with the counselling centre should establish a therapeutic section within the institution which would offer art therapy settings for stress relief services to workers at their own convenience.

Suggestions for Further Studies

Based on the findings from the study conducted on the effectiveness of art therapy in reducing stress, the following suggestions have been made:

1. The study could be replicated on this category of workers over a whole semester to evaluate the impact made over such a time frame – three to four months. Thus, to better evaluate the effectiveness of art therapy on senior staff, an extensive study could be conducted all through a given semester to help evaluate the impacts of the intervention used over eight weeks. This would also help identify what impact art therapy would have on participant during different periods with a semester.

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2. A study could be conducted on the junior staff and senior members of the university to ascertain the levels at which art therapy would significantly help reduce stress. To better evaluate the impacts of art therapy in reducing stress, two different categories of workers could be used in a given study. This would help throw more light on art therapy's

ability to reduce stress of different class of workers.

3. Participants used for a similar study be made to focus on a two art forms with two experimental groups to justify the effectiveness of one art form against another. Unlike this study that explored the use of a wide range of craft making skills in reducing stress, another study could evaluate stress reduction on participant using only two methods for instance beadmaking and painting. This would help highlight the efficacy of one art form being a better measure in reducing stress as against another art form.

Contributions to Knowledge

Globally, the use of art therapy has been applied in dealing with health, cognitive, emotional, behavioural, and other social challenges but not in our Ghanaian counselling sector, especially its usage in stress relieve. This study will serve as a source of literature for other related studies as not much has been documented on the application of creative art therapy as an intervention to reduce the stress of workers.

With the elimination of all traces of inhibition, the researcher in this study was able to use production of creative artworks to increase the knowledge on the efficacy and extent to which art therapy can aid in reducing stress. This

study could therefore serve as a foundational grounds to build on knowledge of art therapy as a stress management technique in Ghana.

Contribution to Practice

In practice, this study has proven that it is possible to include the use of creative art therapy such as picture making, beading, craft making, weaving etc. as techniques that can aid people control any health, cognitive, emotional, behavioural, and other social challenges they might be facing.

Contribution to Policy

To make this study worth its findings, counselling institutions should create centres with creative art facilities to help stressed people. Likewise, the University of Cape Coast in collaboration with the Counselling Centre should set up an Art therapy Centre that will be used to reduce workers with stress.



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APPENDIX A

PERCEIVED STRESS SCALE

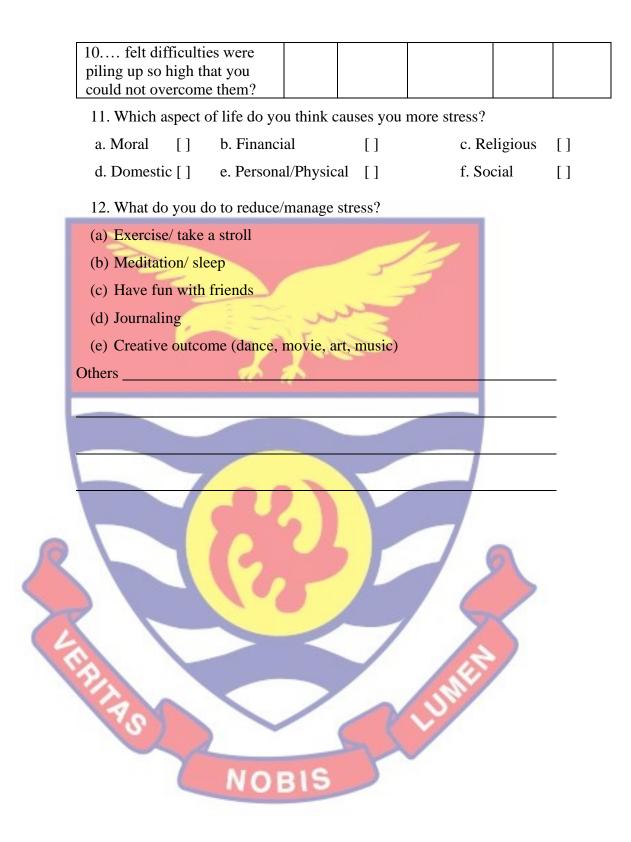
Perceived Stress Scale

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. This tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought in a certain way.

Code		Date		
Age	the state	Gender (Circle):	Male / Female	

For each question, choose (tick $\sqrt{}$) from the following alternatives:

	In the last month, how often	Never	Almost	Sometimes	Fairly	Very
	have you		Never		Often	Often
	1 been upset because of					
	something that happened					
0	unexpectedly?	0				
	2 felt that you were					
	unable to control the	2 20				
	important things in your life?					
-	3 felt nervous and		1			
	stressed?		\sim			
9	4 felt confident about	-				
	your ability to handle your personal problems?			100		
	5 felt that things were					
	going your way?		~	0		
	6 found that you could		CC	~/		
	not cope with all the things		21	1		
·	that you had to do?	10	T			
	7 been able to control	E E	-			
	irritations in your life?		5			
	8 felt that you were on					
	top of things?					
	9 been angered because					
	of things that happened that					
	were outside of your control?					



APPENDIX B

SYMPTOMS OF STRESS

How frequently do you find yourself experiencing such problems as headaches, problems going to sleep or staying asleep, unexplained muscle pain, jaw pain, uncontrolled anger, and frustration? Using the table below, assess the frequency that you experience these common symptoms of stress.

		Frequency of sympt				coms	
	1	All day,	Once	2-3	Once	Once	Never
	Symptoms	every	or	times	a	a	
		day/night	twice	per	week	month	
			daily	week			
	Headaches		8				
			-				
	Tense muscles, sore neck						
	and back pains.	-					
	Fatigue						
-	Anxiety, worry,				7		
S	fears/frightfulne <mark>ss</mark>					6	
	Difficulty falling asleep	0-				1	
	Easily angered				4	7	
6	Sleeplessness/restlessness						
	Periodic moments of			5	10		
	anger/hostility				10.		
	Boredom, depression		1	V			
	Eating too much or too	8	6	21			
	little	DIC	1				
	Diarrhoea, gas,	JPIS	-				
	contractions (stomach),						
	constipation						
	Restlessness or itching						
	y						

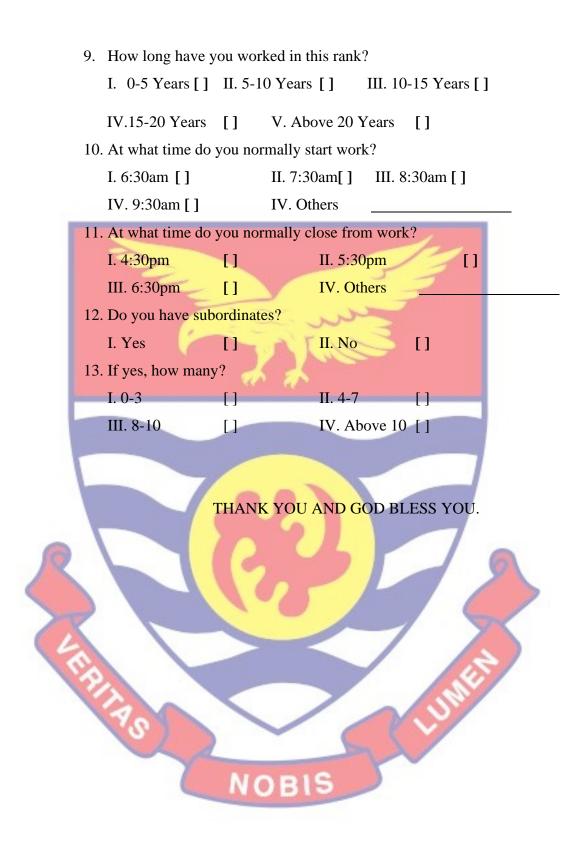
APPENDIX C

BACKGROUND INFORMATION

Date _____

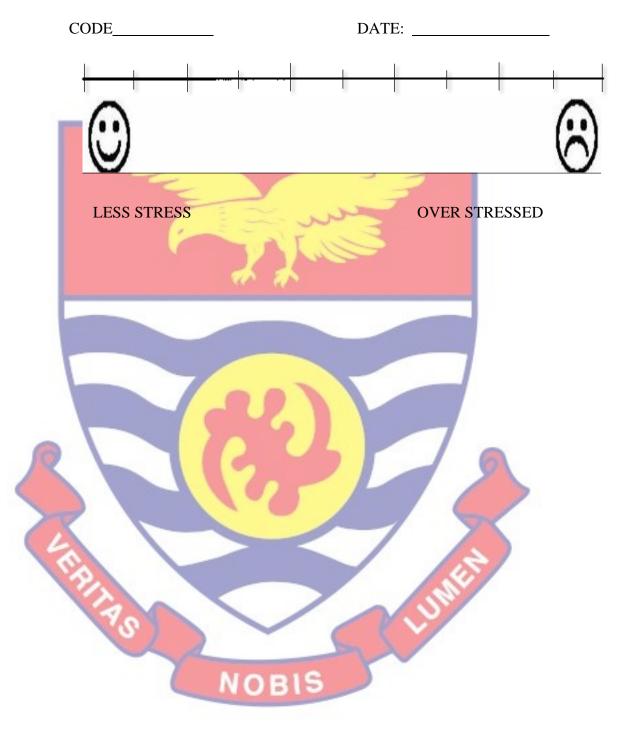
Kindly indicate your answer with a \boldsymbol{X}

	1.	Sex:
	_	I. Male [] II. Female []
	2.	Age:
		I. 21-30 years [] II. 31-40 years [] III. 41-50 years []
		IV. 51-60 years [] V. Above 60 []
	3.	Marital Status:
		I. Single [] II. Widowed [] III. Married [] IV. Divorced []
	4.	Number of children
		I. 1-2 [] II. 3-4 years [] III. 5-6 years []
		IV. Others
	5.	What is your highest academic qualification?
		I. Ph. D [] II. M. PHIL [] III. MFA/MBA/MPA []
6		IV. MA/M.ED/M.SC[] V. BA/B.ED/B.SC [] VI. HND []
1	6.	How many years have you worked in the University?
1		I. 0-5 Years [] II. 5-10 Years [] III. 10-15 Years[]
	-	IV.15-20 Years [] V. 20-25 Years [] VI. Above 25 Years []
		What is your job status?
	0	I. Junior Staff [] II. Senior Staff [] III. Senior Member []
	0.	What is your rank in the office? I) Chief Administrative Assistant/ Chief Technician/ Chief Research
		Assistant/ Chief Library Assistant.
		II) Principal Administrative Assistant/ Principal Technician/Teaching
		Associate / Principal Library Assistant.
		III) Senior Administrative Assistant/ Senior Technician/ Teaching
		Assistant / Senior Library Assistant.
		IV) Administrative Assistant/ Technician/ Research Assistant/ Library
		Assistant.



APPENDIX D

VISUAL ANALOGUE SCALE



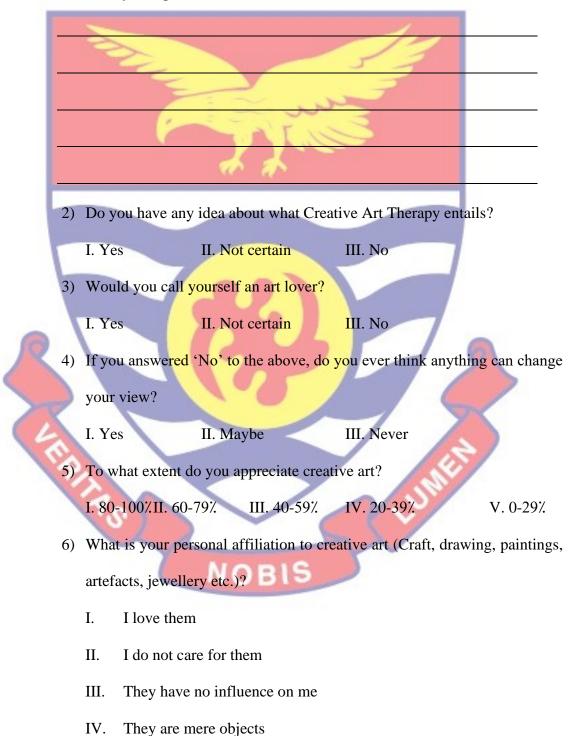
APPENDIX E

CREATIVE ART THERAPY EXPERIENCES QUESTIONNAIRE

Section A

PART I – PERSONAL PERSPECTIVE

1) In your opinion, what is Creative Art about?

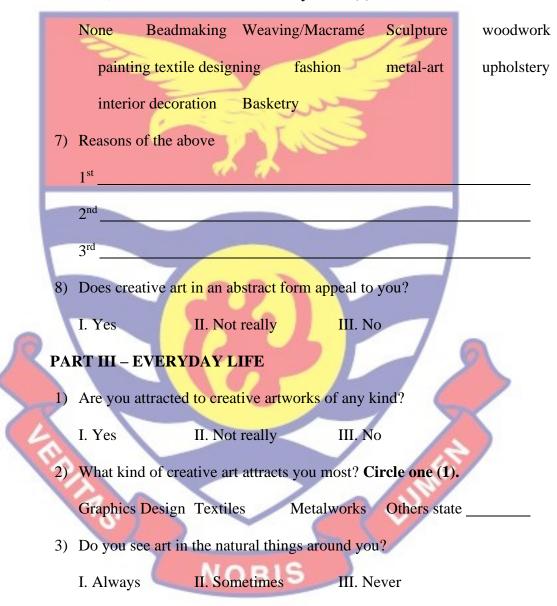


- 7) What aspect of art and craft attracts you most? I. Its usefulness II. Its colourful nature III. Its intricacies IV. Another attribute like 8) If you were to engage in a creative artwork, what aspect of it would you say frightens or intimidates you? I. Designing II. Painting III. Drawing IV. Colouring 9) Why? PART II - EDUCATIONAL BACKGROUND IN CREATIVE ART 1) Did you have any form of formal training in art and craft? I. Yes II. No 2) Was your art teacher friendly? I. Yes II. No 3) To what level did you gain training in art and craft? I. Primary II. JSS/Middle School III. SSS/O-Level/A-Level IV. Tertiary
 - 4) With reference to the above, did you opt for it or it was part of the curriculum?
 - I. Yes, I opt for it II. No, it was part of the curriculum.

5) If you had the opportunity to freely study or be trained in any creative art field, would you take the offer?

I. Yes II. No

 If you had the opportunity to freely study or be trained in any creative art field, what would it be? Circle only three (3).



APPENDIX F

CREATIVE ART THERAPY EXPERIENCES QUESTIONNAIRE

Section B

PART IV - SELF EVALUATION

1) With this new experience, do you think you now have some love for

	creative art? I. Tremendously II. To some degree III. Just a little IV. Not at all
	2) To what extent has your perception of creative art been improved on positively?
	I. 80-100% II. 60-79% III. 40-59% IV. 20-39% V. 0-29%
	3) Are you satisfied with your work of art?
	I. Yes II. A bit III. Not really IV. No
0	4) What score would you give yourself at this point of your creative art
19	production session?
>	I. 80-100% II. 60-79% III. 40-59% IV. 20-39% V. 0-29%
C	5) How would you explain your experience when applying or using the
	Materials
	30
	NOBIS
	Tools

Skills gained	
6) How would you explain your general experience	??
7) Do you have any suggestions on how art could more attractive in our educational structure ar Kindly share your suggestion below.	
NOBIS	JHER

THANK YOU FOR YOUR PARTICIPATION

APPENDIX G

DAILY CAT EXPECTATION FORM

Code:_____ C

Creative art therapy session_____

Date:

What are your expectations for today?



APPENDIX H

LETTER OF INTRODUCTION FROM THE DEPARTMENT

UNIVERSITY OF CAPE COAST COLLEGE OF EDUCATION STUDIES FACULTY OF EDUCATIONAL FOUNDATIONS DEPARTMENT OF GUIDANCE AND COUNSELLING UNIVERSITY POST OFFICE Tolephone: 0332091854 CAPE COAST, GHANA dige if use odu gh May 27, 2020 DGC/L.2/VOL.1/124 Our Ref: Your Ref: TO WHOM IT MAY CONCERN LETTER OF INTRODUCTION We introduce to you, Florence Ruth Akwele Ntreh a student pursuing a Ph.D Programme in Guidance and Counselling at the Department of Guidance and Counselling of the University of Cape Coast. As a requirement, she is to submit a Thesis on the topic: "Creative Art Therapy as a Stress Management Technique for Senior Staff of University of Cape Coast". We are by this letter affirming that, the information she will obtain from your Institution will be solely used for academic purposes. We would be most grateful if you could provide her the necessary assistance. Thank you. Dr. Stephen Doh Fia HEAD OF DEPARTMENT NOBIS

APPENDIX I

INFORMED CONSENT

PART I: INFORMATION SHEET

Title: Creative Art Therapy As A Stress Management Technique For The Senior

Staff Of University Of Cape Coast.

Principal Investigator: Florence Ruth Akwele Ntreh

Address: C/o Department Of Guidance And Counselling, UCC. OR

P.O. Box GP 1498, Accra,

020 831 8438, floruakk@gmail.com.

General Information about Research

The object of the research is to investigate the extent to which creative art therapy can serve as an effective technique in managing stress among the senior staff of UCC. Participants would be taken through a two months (8 sessions) experiment to help prove the effectiveness of creative art therapy. During the experiment, participants would be given an opportunity to choose art forms that appeal most to them. These art forms would be used to help individual participants work on their stress levels through the creative art skills gained. Participants are only required to freely express themselves in any given creative artwork. Products of the art therapy session would be useable to participant after the study. Tools and materials to be used involve everyday items used in the life.

Procedures

To find answers to some of these questions, I invite you to take part in this research project. If you accept, you will be required to:

- Take part in an experiment with 9 other persons who have been proven to have a high level of stress. The experiment would be facilitated by the Researcher and an assistant.
- 2. Complete a perceived stress score (PSS) form at the beginning and end of the study, which would help the researcher know the extent to which

you are stressed. This would help to evaluate the effectiveness of the intervention. Filling this form could take 3-5 minutes.

- 3. Complete a symptoms of stress form. This form allows you to indicate which symptoms of stress you might be experiencing and how often it occurs. This form could take 3-5 minutes to fill.
- 4. Complete a background information form to help the researcher gather basic information about your biodata and the nature of your work. This could take 3-5 minutes to complete.
- 5. Complete a visual analogue scale (VAS) by indicating on a horizontally linear designed scale your perceived stress level. The VAS would help monitor your stress level over the 8-10 weeks therapy period. Indicating your stress level on the VAS takes about a minute to complete.

6.

- Complete a creative art therapy experience (CATE) questionnaire to help the researcher gain understanding about your background and perception to art in general. Such information would serve the purpose of helping the Researcher and the assistant to know the level of attention to provide each participants. Kindly note that the CATE would take 5-10 minutes to complete.
- 7. Complete a daily creative art therapy (CAT) expectation form to project your expectancy for the day. Like the VAS, this form would be filled at

the beginning of every art therapy session. Filling this form could take 1-3 minutes to complete.

You have been chosen to take part in this experiment because your stress level was found to be within the high or very high level health concern, which suggests that some measures need to be put in place to help control your stress level. You are hereby privileged to participate in this therapeutic process which would provide you with simple art skills that would help reduce your stress level by the end of the study.

Since the creative art therapy experiment is to serve as a therapeutic process, the only thing required of you during the creative art experiment is your individualistic expression and adventurous creativity in your artwork. Please note that you need not focus on other participant's work since art is subjected to creativity borne from our inner world. The experiment would be conducted for eleven other participants. Each creative art session is expected to take 45-60 minutes a week.

Possible Risks and Discomforts

Participants who do not have a background in art and or do not appreciate art might have a sense of uneasiness when creating artworks for the first time.

Possible Benefits

The results of the study would increase the knowledge of the extent to which creative art therapy can help relieve mankind from stress.

Participants would learn basic skills in using creative arts and craft to control stress. This would enable them to put to practice such measures in their day to day lives or when the need arises.

The study would aid health workers, counsellors and therapists a more realistic technique to help control stress levels of clients. It would also promote the use of creative art therapy in dealing with health and other social challenges as documented in other parts of the world.

Findings would provide knowledge for counsellors to help relax clients during any session or stage of counselling. Thus, the results of the study would create an awareness that this intervention can serve as a means of treatment in all areas of counselling and therapy.

Aside the normal 'talk-therapy' used in counselling and therapy, counsellor and therapist would identify art therapy as a way of varying the mode in which clients are treated – creating a simpler and relaxing ambiance for treatment.

Alternatives to Participation

The study is originally designed to present different options of creative art forms for participants to choose from in exercising their way out of stress. This would give individuals the comfort in participating in the creative process of reducing

stress.

Confidentiality

The perceived stress scores of participants would serve as a parameter that would call for the inclusion of participants in the experiment. This would be kept safe solely by the researcher and compared to the post-test score to help assess the effectiveness of the intervention. Aside the researcher, the supervisors might also take note these record as a means of crosschecking results from the study.

Compensation

As a result of participating in this study, at the end of eight sessions, members of the experimental group would be entitled to creative artworks they have produced during the intervention. This would serve as a motivation to continue the practice of creating artwork for pleasure which would in turn, help reduce

their stress level after the study period.

Voluntary Participation and Right to Leave the Research

Participation in the study is based on participants volunteering to be included the experiment which would help prove the effectiveness of creative art therapy in reducing stress.

Contacts for Additional Information

Should there be any mind boggling questions or any form of misunderstanding about practices used during any phase of the experiment, participant can contact Florence Ruth Akwele Ntreh on 0208 318 438 for any clarification.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant, you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines 0558093143/0508878309/0244207814 or email address: irb@ucc.edu.gh. *PART II: VOLUNTEER'S AGREEMENT*

The above document describing the benefits, risks and procedures for the research title Creative Art Therapy As A Stress Management Technique For The Senior Staff Of University Of Cape Coast has been read and explained to

me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Volunteer's Name: Volunteer's Signature: Date: I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual. **Researcher's Name: Researcher's Signature:** Date:

APPENDIX J

ETHICAL CLEARANCE LETTER

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT TEL: 0558093143/ 0508878309/ 0244207814 C/O Directorate of Research, Innovation and Consultancy

E-MAIL: inbaruecedu.gh OUR REF: UCC/IRB/A/2016/775 YOUR REF: OMB NO: 0990-0279 IORG #: IORG0009096



5TH AUGUST, 2020

Ms. Florence Ruth Akwele Ntreh Department of Guidance and Counselling University of Cape Coast

Dear Ms. Ntreh,

ETHICAL CLEARANCE - ID (UCCIRB/CES/2020/56)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol **Creative Art Therapy as a Stress Management Technique for the Senior Staff of University of Cape Coast.** This approval is valid from 5th August, 2020 to 4th August, 2021. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD UCCIRB Administrator ADMINISTRATOR INSTITUTIONAL REVIEW BOAKD UNIVERSITY OF CAPE COAST



APPENDIX K

CREATIVE ART THERAPY AND STRESS SCRIPTS

INTRODUCTION TO THE CONCEPT OF CREATIVE ART THERAPY

Take a moment to reminisce about when you were a young child. Remember how everything was open, interesting, mysterious, vibrant, new,

and fresh.

Remember how curious and joyful you felt. Remember how the world was full of endless possibility. In short, remember your innocence. By Michael A. Rodriguez (April 05, 2018)

THE CONCEPT OF ART THERAPY

Before delving into the concepts behind the art therapy technique, let's take a look at the components of the words that make up this peculiar method – Art, Therapy and Art Therapy. Understanding each word would help bring to light the true reflection and essence it bears in this therapeutic procedure.

ART: - Art is a flexible medium with a wide range of methods that help in selfexpression. This includes writing, dancing, music, painting, drawing, and all manner of craft making, among other procedures.

Amenowode (2001), defines art as "the expression of mankind's inner feelings in *visual form*". According to Malchiodi (2003) and Rubin (2005), art making is an innate human tendency. Rubin (2005), speaks of the fact that people create art as a means to externalise ideas. This. he explains as a way to "stimulate new thoughts and feeling". A typical example is when a teacher speaks of something and goes further to use a story (scenario) to help create better understanding of the subject of discussion. Arnhein (1969) terms this as "visual thinking". Thus, art can be seen through the visual art and *oral art forms*. As the saying goes "a *picture is worth a thousand words*". **THERAPY**: - The word therapy is explained as "any form of treatment for a disorder by a method other than surgery" (Coleman, 2006). The writer speaks of the etymology of therapy as a Greek word '*therapeuein*' which is translated as 'to heal' or 'take care of'. According to Engler (2006), it is "the practical application of psychology in ways that will assist individuals". Though therapy could be done in a hospital setting, unlike most medical procedures, art therapy can be run in different setting by a wide range of specialists.

ART THERAPY: - The Oxford dictionary of psychology defines art therapy as, "*a form of psychotherapy in which clients or patients are encouraged to express their feelings and their inner conflicts through art*" (Coleman, 2006). According to Moon, art therapy can be described as a kind of psychological therapy that uses art as a tool for facilitating therapeutic growth (Curl & Forks, 2008), or "a form of psychotherapy that uses art media as a way for the client to express their feelings and thoughts" (British Association of Art Therapists, 2010). Searle and Streng (2001), claim that due to its communicative nature, it helps to 'discover and strengthen' the sense of self. By this, the writers explain further that it presents the opportunity to get in touch with self through an external medium.

American Art Therapy Association (2017) on the other hand, defines art therapy as "an integrative mental health and human service profession that enriches the lives of individuals, families, and communities through active artmaking, creative process, applied psychological theory, and human experience within a psychotherapeutic relationship".

Art Therapy, unlike other therapy techniques, uses a language other than words, and that language can act as an important agent in helping individuals to reduce

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stress. The process of creating a piece of art triggers an internal activity that helps us to heal in emotional, physical, and spiritual ways.

It is a modality that uses the non-verbal language of art for personal growth, insight, and transformation. Information gathered from the British Association of Art Therapists, (2010) indicates that the act of art therapy serves as a means of connecting to the inner being of individuals - be it our thoughts, feelings or perceptions - with outer realities and life experiences.

The value of art therapy was promoted in the 1940's by different professionals – mental healthcare personnel, psychologists, counsellors, social workers, and psychiatrists – who engaged in the practice of this novel technique (Kaplan, 2000; Edwards, 2004).

Though in some cases art therapy can be said to be an innovative technique in dealing with physical, emotional as well as psychological health challenges, not all people easily accept it as an open-minded technique they would like to approach or engage in. This is mostly due to *inhibition* and fear or some sort of intimidation to doing artwork of any kind. Inhibition according to Malchiodi (2003) and Edwards (2004) could be as a result of past insecure experiences in art (therapy) or a sense of insufficiency.

NB. 1 - Neither previous artistic experience nor natural artistic ability is necessary for successful treatment (goodtherapy.org, 2010)

2 - Both artwork and the process of making art require self-reflection which is the cornerstone of psychotherapy (Curl, & Forks, 2008).

TYPES

As stated earlier, the skill of art is an innate tendency in all men. The practice of art can be applied and seen in different approaches with a wide range of tools

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and materials. In art therapy also, an individual can find a host of skills and resources that help deal with client of different physical, psychological, and behavioural challenges.

There are diverse scales on which the Art therapist can assess his or her client or patient. Since everyone can make expressions through artworks, the use of any of these techniques depend on the situation at hand, the age, educational status, different mental state of being of the individual, and many other factors. For instance, a Child Psychologist in encouraging a child to participate in any form of counselling, would employ toys, to make the child feel safe since the game is neither patronising nor threatening.

Some other skills or art forms that could be used in therapy include painting, drawing, colour, photography, digital art, or a variety of other types of visual art expression, music, dance, textiles, drama, play, collage or mosaic, sculpture, theatre, lay work, woodwork and any other creative measures could also be applied as creative techniques in art therapy (Kaplan, 2000; Malchiodi, 2003; Edwards, 2004; Buchalter, 2009).

No matter the type of artistic method you use, the client or patient tend to have sone amount of physical and psychological relief and a total sense of serenity.

TOOLS AND MATERIALS

Some tools and materials that can be used for art therapy include assorted paper, colour (pastel, crayon, water colour, paints, markers, chalk, coloured pencil, poster colour, acrylics etc.), pen, pencils and eraser, card board, wood, knifes, old pictures, magazines, glue, scraps of different kinds, pliers, paint brushes, foam, stapler, wood scrapes/shavings, sand, puppets, toys, clay,

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scissors, costumes, musical instruments, needles, easel, assorted fabric, beads, computer programmes and many other materials that could be used to create different art forms (Kaplan, 2000; Edwards, 2004; Rubin, 2005; Hass-Cohen & Carr, 2008; Buchalter, 2009; Karkou, 2010).

USES

The purpose of art therapy is similar to any other psychotherapeutic modality that improves or maintains mental health and emotional well-being. The Natural Standard Research Collaboration indicates that art therapy allows the opportunity to exercise the eyes and hands, improve eye-hand coordination and stimulate neurological pathways from the brain to the hands. They go on to explain that research has established that emotional expression has positive benefits for the immune, nervous, and cardiovascular systems. The psychological and physiological benefits attained through art therapy may contribute to improved quality of life and theoretically, to the medical course of illness (Natural Standard Research Collaboration, 2007).

The application of this method of therapy is mostly seen in institutions such as mental health centres, inpatient hospitals, individual and group therapy sessions, day treatment programs, psychotherapy session, schools, hospitals (physical and mental), aged homes, nursing homes, prisons, counselling/ intervention/ medical facilities, shelters, rehabilitation centres and studio settings to help their clienteles (Killick & Schaverien, 2002; Waller, 2002; Rubin, 2005; Warren, 2008; Karkou, 2010).

Some benefits and uses of art therapy spelt out by writers including Malchiodi (1999); Kaplan (2000, 2007); Farrelly-Hansen (2001); Lobb & Amendt-Lyon (2003); Liebmann (2004); Rubin (2005); Gale Encyclopaedia of

Nursing and Allied Health (2006); Hass-Cohen & Carr (2008), Levy (2011): Hoffmann (2016); and Haeyen (2018) have been listed below:

- Creates a deeper and better self-knowledge. The production and discussions of artworks help the individual as well as the therapist to gain a higher level of knowledge about the client.
- 2. It serves as the best means of getting children to express their feelings. Grownups who are said to be regressed (temporarily or permanently) also find this technique as less threatening and a better mode of expression.
- 3. Having finished a project and made time to discuss the essence (feelings, reason for creation etc.) of the product, can lead to explorations of important issues that might be deep within the client.
- 4. Children who have developmental challenges of organic or psychological roots are said to often benefit significantly when therapists add drawing and other art activities to other conventional methods.
- 5. Art therapy serves as a means of getting some group of clients to communicate better and in a free-from-tension atmosphere. Thus, it reinforces one's ego. People who have undergone traumatic and abusive circumstances, those who are 'painfully shy' or find it difficult in communicating with words whether the cause is organic, as in aphasia, or psychological, as in elective mutism can all be helped to communicate better through the use of art therapy.

6. Another group of communicators that could be aided with art therapy are those who have problems with verbal communication. Thus, art therapy is said to be used as a 'second language' for persons who are autistic, hearing impaired, or have brain damages of any sort. Elective mutes and deaf-mutes could also communicate only through drawings.

7. This therapeutic measure can be used at any given time during treatment. It could be used either as the main intervention of treatment and could also be introduced at any stage in a given treatment to serve as a supportive alternative to the main treatment.

- 8. Patients with acute illnesses of psychoses (schizophrenia, depression, bipolar disorder, and serious personality disorders) can be treated with this intervention. This indicates the benefits art therapy has in the field of mental health.
- 9. Treatment of ill persons with art therapy holds a high potential of helping to withdraw symptoms from patients. During the therapy, one's ability to imagine freely in art is extremely therapeutic and relieving to patients. As one writer puts it, "you can do anything you want to in art, unbound by realistic considerations". This is the power art therapy holds in aiding individuals to overcome any sort of physical or psychological imbalances.
- 10. Other range of issues that can be treated with art therapy include person with:
- Alzheimer's disease Cancer

_	Eating disorders	-	Stroke
-	Sexual abuse	-	Substance abuse
-	Bedwetting	-	Victims of abuse
-	Bereaved persons	-	Self-Discovery
-	Chronic Pain	-	Physical rehabilitation
~	Memory loss	-	Social skills
2	Relaxation and stress relief	-	Anger and resentment issues
-	Conflict and distress	3	Borderline personality disorder
-	Multiple personality disorde	er	(known as dissociative identity
	disorder)		
	The technique also helps in	n u	nderstanding deep emotions of
clients with or without verbal or written explanations.			
Rubin (2005) further explains the following as advantages of applying			

art in therapy; some things are easy to say when expressed using art. Art accelerates therapy. Art is concrete and lasting. Art tends to relieve tension. Art reduces self-consciousness; images have magical power, Art can overcome treatment impasse, some things are easier to 'see' in art, art is a natural way to communicate, Art enhances integration. All the above outlines the vast nature of benefits art therapy provides to its users through its creation and interpretation.

NOB

Effects of stress on bodily functions

	Normal	Under pressure	A quita proggura	Chronic	
	(relaxed)	Under pressure	Acute pressure	pressure	
	(lelaxed)			(stress)	
	Brain blood supply blood supply u		blood supply up	Thinks more	Headaches or
	Druin	normal	eree suppry up	clearly	migraines,
				5	tremors and
					nervous tics
	Mood	Нарру	Serious	Increased	Anxiety, loss
				concentration	of sense of
	2			12	humour
	Saliva	Normal	Reduced	Reduced	Dry mouth,
_				-	lump in throat
_	Muscles	Blood supply	blood supply up	improved	Muscular
_		normal		performance	tension and
_			111	¥.	pain
	Heart	Normal rate	Increased rate	Improved	Hypertension
_		and blood	and blood	performance	and chest
		pressure	pressure		pains
	Lungs	Normal	Increased	Improved	Coughs and
	<u> </u>	respiration	respiration rate	performance	asthma
	Stomach	Normal blood	Reduced blood	Reduced	Ulcers due to
		supply and acid	supply and	blood supply	heartburn and
		secretion	increased acid	reduces	indigestion
	Derrale	Name 1 11and	secretion	digestion	Abdominal
	Bowels	Normal blood supply and	Reduced blood supply and	Reduced	
		supply and bowel activity	supply and increased bowel	blood supply reduces	pain and diarrhoea
X		bower activity	activity	digestion	ulaillioea
6	Bladder	Normal	Frequent	Frequent	Frequent
	Diadder	Horman	urination	urination due	urination,
				to increased	prostatic
02				nervous	symptoms
				stimulation	J P C
	Sexual	(Male) Normal	(M) Impotence	Decreased	(M)
	organs		(decreased blood	blood supply	Impotence
		(Female)	supply)		-
	.0.	Normal periods	(F) Irregular		(F) Menstrual
		etc	periods	λ	disorders
	Skin	Healthy	Decreased blood	Decreased	Dryness and
			supply and dry	blood supply	rashes
			skin		
	Bio-	Normal:	Oxygen	More energy	Rapid
	chemistry	Oxygen	consumption up,	immediately	tiredness
		consumed	glucose and fats	available	
		glucose and	consumption up		
		fats liberated			

List of Ailments recognised to have stress background

1. Hypertension: high blood pressure	2. Menstrual difficulties
3. Coronary thrombosis: heart attack	4. Nervous syspepsia: flatulence and indigestion
5. Migraine	6. Depression
7. Hay fever and allergies	8. Hyperthyroidism: overactive thyroid gland
9. Asthma	10. Diabetes mellitus
11. Pruritis: intense itching	12. Skin Disorders
13. Peptic ulcers	14. Tuberculosis
15. Constipation	16. Colitis
17. Rheumatoid Arthritis	18. Indigestion

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