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Psychological Distress and Amputees: Review of Predictors and Impacts on Clinical Practice

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Abstract: ***This study was a meta-analytic approach that investigated the roles of learned helplessness and social support in predicting psychological distress among amputees. Using online search engines and hardcopies of theses, forty-five (45) empirical studies which ranged from 2011-2018 were reviewed. The research title, methodology of each study and major findings were presented on a tabular form. Most of the reviewed studies indicated that learned helplessness, social support and socio-demographic information significantly contributed to psychological distress among amputees. However, in a very few studies it was reportedly observed that learned helplessness and social support do not have any significant effects on the psychological distress of amputees. Consequently, the discussion of findings, implications for clinical practice, recommendations and limitations were presented by the researcher.***

Keywords: Learned Helplessness, Social Support and Psychological Distress

1. Introduction

Going by the high propensity for the experience of psychological distress among amputees, the present study is investigating the predictors of psychological distress among amputees by considering learned helplessness and social support and the impacts that this has on clinical practice. Psychological distress is viewed by many as a generic term that describes unpleasant states that have negative impacts on an individual's level of functioning (Gilbert, 2018). Psychological distress is conceptualized as those emotions that disrupt our normal functioning and inhibits us from carrying out or fulfilling our major roles. Thus, psychological distress prevents a husband or wife from fulfilling his or her major roles within the family setting, a boss from fulfilling the major roles at the workplace setting, or a student from fulfilling the major roles at the school setting. The hallmark of psychological distress is on troubling states that interferes with the normal functioning processes of individuals. Some scholars posit that psychological distress is a mental illness, while some others posit that it is a symptom of mental illness (National Institute of Mental Health, 2018).In either case, there is no doubt that a strong association exist between psychological distress and mental illness.

For the purpose of this paper, the focus will be on psychological distress among amputees, and the predictions of learned helplessness and social support on this. An amputee is a person whose limb has been removed by trauma, medical illness or trauma, and this process is called *amputation* (World Health Organization, 2017). The feeling that a person will live the rest of his or her life with a lost limb can be traumatic and as such has high propensity for breeding psychological distress in the minds of amputees. Some amputees find it hard to embrace this sad reality, consequently some of them experience a disorder called *phantom limb pain*, which describes a sensation that an amputated limb still exist on the body.This false sensation has been reported in many to largely account for psychological distress among amputees (e.g. Okonkwo 2018; Gutman, Kingsley & Honey, 2018). Consequently, investigating the predictors of psychological distress among amputees and its impacts on clinical practice thus becomes very imperative.

Learned helplessness is a concept introduced by Richter (1957) and further advanced ten years later by Seligman (1967). Learned helplessness is perceived as a person's expectation of being a victim of bad events, thus learned helplessness is a product of the mind's thinking processes; whatever you think you shall become. Learned helplessness occurs when people anticipate that unpleasant or bad events will happen and that there is nothing they can do to hinder its occurrence to them. Learned helplessness is centered on perceived feelings of powerlessness or hopelessness that a person or animal experiences after exposure to traumatic events. In other words, learned helplessness can be defined as state or condition where a person suffers from feelings of powerlessness or hopelessness due to a traumatic experience. This process is thus an out outcome of a conditioning process.

Social support is a concept that refers to those offered assistances or help to persons in need (Talley, Brown, Cukrowicz & Bagge, 2016). Social support is the assistance that another person is willing to offer to someone in need. That assistance or help offered is referred to as *social support*, while the person offering the assistance is the *source of social support*. Social support can come from anybody, in as much as it is in the form of help presented to someone in need. The hallmark of social support is helping behaviour towards someone in need.

2. Problem Statement

Presently, there are over 8.2 million people living with a loss limb globally, and this statistics is expected to double by 2050 (American Amputee Statistics, 2018). Consequently to these increased statistics, it implies that the prevalence of psychological distress among amputees is also of high propensity.Hence, this will probably increase the gap in knowledge on the triggers of psychological distress among amputees, it thus becomes imperative for the investigation of variables that contribute to psychological distress among them.

Amputees can still live a normal and healthy life, however an amputee that is psychologically distressed will have difficulties living a normal and healthy life. Such an individual will also have difficulties fitting back into the society. Hence, this difficulty resulting from psychological distress will have negative consequences on the physical and psychological wellbeing of amputees.

The last perceived problem which necessitated the present study is the accompanied risks associated with psychological distress among amputees. For example psychological distress among amputees can trigger suicidal risk or full blown psychoses among amputees. Hence, knowledge about the predictors of psychological distress among amputees can assist to buffer against the high prevalence of psychological distress among amputees.

Research Objectives

The following are the purposes of the present study:

1) To systematically review related studies on the roles of learned helplessness and social support in predicting psychological distress among amputees.
2) To identify the impact of findings from this study on clinical practice for psychologists.

Research Questions

The following research questions will be answered in this study:

1) What pattern of findings have been documented on the roles of learned helplessness and social support in predicting psychological distress among amputees?
2) What impact do these findings have on the practice of clinical psychology?

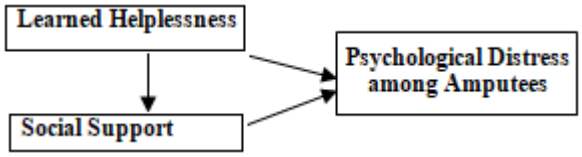
3. Significance of Study

This study is of great significance. Firstly, the present study contributes meaningfully to the knowledge of psychological distress among amputees. The core significance of every research is to add to existing knowledge of the phenomenon under study. Hence, this study adds meaningfully to knowledge and identifies knowledge gaps which further studies will be required to address.

Secondly, findings from this study will also highlight important impacts for the practice of clinical psychology on the management of psychological distress among amputees. Thus improving the necessary skills of psychologists and outcomes of psychological management among amputees. In addition, recommendations from this study when considered by clinical psychologists is expected to significantly contribute towards a decline in the prevalence of psychological distress among amputees.

Lastly, findings from this study will breed policy recommendations for governments and health management boards that will strengthen the physical and psychological wellbeing of amputees thus controlling psychological distress among amputees. In essence, the expected findings from this studythus has great potentials for enriching literature.

4. Conceptual Framework



5. Theoretical Framework

Learned Helplessness Theory

The theory of learned helplessness was first introduced by Richter (1957) after experimenting with animals. According to this theory, animals and human beings after exposure to prolonged life threatening events, begin to feel powerless and thus the outcome is *learned helplessness*. Learned helplessness means to be helpless after experiencing a negative situation and this helplessness is a product of learning i.e. conditioning process. The learned helplessness theory has been widely used to explain how life threatening or traumatic events predispose individuals to helplessness and distress.

With utility to the present study, the learned helplessness theory reflects that amputees can also feel helpless, especially when the challenges of being an amputee becomes unbearable. In addition learned helplessness among amputees can also breed physical and psychological distress, thus increase the likelihood of further comorbidity in them.In essence, the theory of learned helplessness is utilized in this study for explaining the likelihood of eared helplessness among amputees and its impact of the psychological distress among amputees.

The Buffering Hypothesis

Cohen and Willis (1985) are credited for developing the buffering hypothesis. The buffering hypothesis holds that the presence of social supports system helps buffer or protect a person from the adverse impacts of stressful events. This suggests that a strong social support system can buffer against distress, depression and anxiety in a person. In essence, the buffering hypothesis holds that when individuals are faced with stressful life events or traumatic events, the presence of a strong social support system can protect these individuals from a the negative or harmful effects associated with the faced stressful life events. Furthermore, a weak social support system thus increases the likelihood that persons faced with stressful life events will be weakened by the negative effects of the faced stressful life events. In essence, the buffering hypothesis is centered on the relevance or function of a strong social support system in buffering persons faced with stressful life events against the negative impacts of these stressful life events.

With utility to the present study, the buffering hypothesis provides a theoretical perspective for understanding the roles of social support in enhancing wellbeing of individuals facing life threatening events.It is thus imperative that the roles of social support in limiting psychological distress among amputees be considered for investigation.

Leonard Pearlin's Theory of Psychological Distress

Pearlin in the 1960s developed a theory of psychological distress. According to this theory, every individual is susceptible to change as a result of certain stressors that come their way and propels them for this change. In some instances, these changes can be planned, while in some other instances it may be unplanned. Peralin postulated that there are four major elements that accounts for psychological distress in individuals namely; (i) individual characteristics, i.e. features of an individual which include gender, age, race, personality, etc. (ii) skills for coping with stress (iii) availability of social support network and (iv) nature and timing of stress.

The psychological distress theory thus provides a theoretical perspective for comprehending psychological distress among amputees. With this theory, it has been illustrated how amputation can breed psychological distress among amputees, as well as certain key factors that can either increase or decrease psychological distress among amputees.

6. Methodology

This study deployed a secondary data collection method. This implies that data were collected from already existing data. For the purpose of this study, forty-five (45) related studies were reviewed for datacollection across different online libraries and journals. The outcome of data collection will be summarized in a table below.

Summary of Findings on Learned Helplessness and Social Support as Predictors of Psychological Distress among Amputees

S/N	*Study*	*Sample*	*Study Design*	*Results and Conclusion*
1	Horgan&Maclachian (2017). Psychological predictors of adjustment to lower limb amputation: Mitigating against psychological distress.	204 amputees were randomly selected.	Survey design	Results showed that amputees had difficulties in adjusting to lower limb amputation. Further findings showed that the availability of solid social support networks buffered against psychological distress among amputees. Thus it was recommended that strengthening the social support system of amputees should be of importance during case management with amputees.
2	Segall& Duhamel (2018). Psychological adaptation, coping and distress in amputated adults.	190 amputated adults.	Cross-sectional survey design.	The findings showed that most adults showed a weak psychological adaptation and coping in the face of living with amputation. In addition, it was found that perceived helplessness contributed to weak psychological adaptation and coping among research participants.
3	Coffey (2012). Goals, adaptive self-regulation and psychosocial adjustment to lower limb amputation: a longitudinal study.	567 amputees	Survey and qualitative interview for a six-month duration.	Adaptive self-regulation, goals and social support contributed significantly to psychosocial adjustment, thus reducing physical and psychological distress among amputees.
4	Norton (2018). The course of psychological distress and determinants of adjustment following an amputation.	31 amputees	Survey design	Results showed that learned helplessness and social support jointly and independently predicted psychological distress and adjustment among amputees.
5	Chikwe (2018). Stress, coping and psychological distress: an examination into the experience of amputees.	202 amputees	Questionnaires	Learned helplessness had no significant influence on psychological distress. Hope and optimism contributed to coping and significantly reduced stress among amputees.
6	Bhuvaneswar, & Stern (2018). Reactions to amputation: predictors of distress.	120 amputees	Experimental study	As social support was introduced, amputees reported less helplessness and distress. Hence social support should be made available to amputees, and this may be achieved through psycho-education, family therapy or encouraging amputees to enroll as beneficiaries in social welfare organizations that addresses the needs of amputees.
7	Ohenewa (2017). Correlates of emotional pain and coping strategies among amputees and their caregivers.	280 amputees	Survey design	Results showed that both social support and learned helplessness significantly accounted for 73% of distress among amputees.
8	Reeves (2018). Psychological factors associated with adjustment in people with leg amputation.	301 amputees	Qualitative design	Social support was found to be significantly associated with adjustment and distress prevention in amputees.
9	Junior (2011) psychological correlates of distress among amputees.	37 amputees	Qualitative interview	Feelings of helplessness was associated with distress among amputees.
10	Cruiseman& Vardy (2015). Psychological distress among amputees: predictors.	127 amputees	Qualitative and quantitative design.	Absence of social support network increased distress among amputees. Also, personality and resilience contributed to psychological distress among amputees.
11	Okafor&Ulocha (2018). Psychological distress and amputees: predictors and implications for case management.	94 participants	Survey method of data collection	Results showed that among the predictors of psychological distress were personality, learned helplessness, socio-cultural norms and values, perceived neglect and discrimination. In this light, the researchers recommended that there is a knowledge gap on the mediating and moderating variables of this relationship, hence further studies will be required on this area.

12	Vardy (2018). Consequences of psychological distress on amputees.	131 adult and children amputees.	Qualitative design	Children amputees reported significantly less psychological distress compared to their adult counterparts. Further findings showed that psychological distress bred suicidal risk among research participants. Lastly, it was reportedly observed that negativism, hope, social support and optimism were significant joint and independent predictors of psychological distress, and accounted for 73% of psychological distress among research participants.
13	Blind (2017). Precipitants of psychological distress among amputees.	82 amputees	Survey design.	Results showed that the prevalence of psychological distress was relatively high among amputees. Further findings showed that the major precipitants of psychological distress among amputees were age, sex, socio-economic status, fatigue severity, learned helplessness and loneliness. Consequently, the researcher recommended that appropriate efforts that combat psychological distress among amputees should consider the major precipitants.
14	Hamza and Oliver (2015). Triggers of psychological distress among newly amputated individuals.	33 amputees	Semi-structured interview	Results showed that the major factors contributing to psychological wellbeing among newly amputated individuals were hope, irrational thoughts, learned helplessness and lack of coping skills.
15	Dave and Moon (2015). Correlates of distress and its implications for amputees.	149 amputees	Survey design	Correlates of distress among amputees included duration of amputation, perceived stigmatization, and availability of social support.
16	Ozoemena (2016). Psychological distress and its antecedents among lower limb amputees.	113 lower limb amputees.	Qualitative interview.	The major finding from this study showed that neglect from loved one significantly influenced the onset of psychological distress among research participants.
17	Manya and Kunta (2014). Precipitants of physical and psychological distress among amputees.	204 amputees.	Survey and observational methods.	No significant association was found between psychological distress and other variables.
18	Meludu and Ejike (2018). The role of psychological capital and social support in predicting psychological distress among amputees.	65 amputees	Survey design	Findings showed that among the psychological capital, only hope and resilience, and social support significantly accounted for psychological distress among amputees.
19	Albert (2018). Family togetherness and social support as a predictor of psychological distress among married amputees.	32 amputees.	Survey design	Findings showed that family togetherness alone significantly contributed to the psychological distress experienced by research participants.
20	Idowu, Omisakin and Adeleke (2018). Psychological distress and amputation: implications on wellbeing.	118	Use of questionnaires	Findings showed that amputation had no significant implication on the psychological distress of amputees in that study.
21	Sahu (2016). Psychological effects of amputation. A review of psychosocial predictors.	206 amputees	Survey	Major findings showed that, perceived inability to cope with amputation and social support significantly accounted for psychological distress among amputees.
22	Luchetti and Whyte (2018). Psychosocial correlates of distress and pain among amputees	123 amputees	Survey and qualitative interview	Major findings showed that presence pain, perceived helplessness and comorbidity resulting from amputation significantly accounted for distress among research participants.
23	Cheung (2016). Psychological causes of distress among lower or upper limb amputees.	82 amputees	Qualitative interview.	Findings showed that amputees' inability to enjoy previously enjoyed activities resulting from their amputation and availability of social support significantly accounted for distress among them.
24	Stevelink and Kazemi (2018). The role of happiness, social support and coping skills in predicting distress among amputees	75 amputees	Semi-structured interview	Major results showed that happiness, social support and coping skills significantly accounted for distress among amputees. Hence, further studies in this area will be required to identify variables that mitigate against the wellbeing of amputees.
25	Gilg (2015). The influence of resilience, perceived optimism, perceived helplessnessand socio-demographic information on the distress of amputees.	119 research participants	Use of questionnaires	Results showed that, amputees who were optimistic, and resilient reported less psychological distress. Further findings showed that, male amputees reported significantly less psychological distress than their female counterparts. Also, helplessness significantly influenced distress. Lastly, it was reportedly observed that age, marital status and employment status significantly accounted for the psychological distress of amputees.
26	Perkins (2012). Psychological predictors of psychological distress among amputees.	23 amputees.	Survey design	Findings showed that there was no significant association between psychological factors and psychological distress among amputees.
27	Bahari and Kot (2018). A psychological	101	Structured	Findings showed that adherence to medical routine and

	model of the prediction of psychological distress among amputees.	amputees.	interview design.	acquired helplessness significantly accounted for distress of research participants. Hence, adherence to medical advice should be strengthened through psych-education programs among amputees.
28	Subomi and Ali (2018). Psychological distress and its psycho-demographic associated factors.	246 amputees	Survey design	Findings showed that age, socio-economic status, membership to amputees' social welfare group, availability of social support and evaluation of stressors were significant associated factors of psychological distress among amputees. Consequently it was thus suggested that periodic cognitive behavioral therapy among amputees may be positive in ameliorating distress among amputees.
29	Muomah (2015). Risk of psychological distress amongamputees. Predictors.	21 amputees	Questionnaires	Findings showed that perceived feelings of isolation and social neglect significantly contributed to distress among research participants.
30	Colcear and Joachim (2018). Correlates of psychological distress	72 amputees	Qualitative interview and a focus group discussion	Results showed that there was no significant association between resilience, helplessness and socio-demographic information (age, sex and duration of amputation) on the psychological distress of amputees.
31	Stewart and Finta (2015). Psychological distress and triggers among amputees: the role of discrimination, medical adherence, social support and positive thinking.	218 amputees	In-depth interview and survey	All independent variables significantly contributed to the development of psychological distress among amputees.
32	Ogbuekri and Chineke (2017). Psychological determinants of distress among newly amputated individuals.	41 amputees	Survey method	Belief in just world, social support and ambiguity tolerance significantly accounted for psychological distress among research participants.
33	Rybarcykz (2018). Predictors of distress among amputees.	74 amputees.	Survey design	Social discomfort, learned helplessness and emotional neglect contributed to psychological distress among amputees.
34	Amalraj and Faroq (2017). Psychosocial associates of distress.	181 amputees	Questionnaires	Depression, anxiety, perceived helplessness and low-self-esteem significantly accounted for psychological distress among amputees.
35	Pwajok (2015). A Nigerian case study of the psychological antecedents of distress among amputees.	94 lower limb amputees	Focus group discussion and survey design	Low socio-economic status, poor social support and interaction and perceived absence of coping skills were found to predict psychological distress among amputees.
36	Sadiq and Abubakar (2018). Predictors of psychological distress among amputees.	117 amputees	Questionnaires	Learned helplessness and pessimism accounted for psychological distress among amputees.
37	Coffey, Ganta and Freedom (2017). Does stigmatization, social support and knowledge about coping techniques cause psychological distress among amputees?	61 amputees	Survey design	All independent variables significantly contributed to psychological distress among amputees.
38	Hona (2018). Associated factors of psychological distress: the role of psychological and demographic factors.	54 amputees	Questionnaires	Part of body amputated, absence of social support and perceived loneliness accounted for psychological distress.
39	Mensah (2018). Correlates of psychological distress	74 amputees	Survey design	No significant correlation was found between gender, learned helplessness and optimism on psychological distress among amputees.
40	Acor, Peterson, Long and Hans (2015). The role of health seeking behavior, availability of social support and locus of control in predicting psychological distress among amputees.	212 amputees	Survey design	All independent variables significantly accounted for psychological distress among amputees.
41	Sahu, and Malam (2017). Psychological predictors of psychological distress.	38 amputees	Use questionnaires	Social discomfort, perceived coping skills, learned helplessness and psycho-education programs contributed to the psychological distress of research participants.
42	Cool, Benza, Una, and Yamaz (2018). Spousal burden of care, available social support and socio-economic strength as correlates of psychological distress among amputees.	173 married amputees	Semi-structured interview	All independent variables significantly accounted for psychological distress.
43	Benedict (2015). Psychological correlates of psychological distress among amputees.	23 amputees	Use of questionnaires	Resilience, adherence to medical routine and availability of social support significantly accounted for distress among research participants.
44	Raa, Frim and Otil (2018). Illness acceptance, emotional and social needs as correlates of psychological distress among amputees.	141 amputees.	Use of questionnaires	All independent variable significantly accounted for psychological distress among amputees.
45	Adejumo, and Balogun (2018). Using psych-demographic factors to explain psychological distress among lower limb amputees.	45 amputees	Use of questionnaires	Participants' age, socio-economic status, acquired helplessness and marital status and emotional stability significantly accounted for psychological distress among amputees. Hence, further studies were required to find more barriers to the physical and psychological wellbeing of amputees.

7. Discussion and Implications for Clinical Practice

From the aforementioned presentation of findings on the roles of learned helplessness and social support in predicting psychological distress some discussion and implication will be presented. The major findings showed that learned helplessness and social support significantly accounted for the experience of psychological distress among amputees. Further findings showed that the socio-demographic information of amputees also significantly contributed to the psychological distress experienced by amputees. In addition, the methodology for most reviewed studies on this area deployed a cross-sectional study design with semi-structured interview and survey data collection method design. However, in a few studies, learned helplessness and social support did not significantly account for psychological distress among amputees. Consequently, there are certain implications for these findings.

Firstly, these findings implies that learned helplessness could have significant prediction on the psychological distress of amputees because the state of being an amputee could foster thoughts of helplessness in the minds of amputees, thus increasing the high propensity of amputees becoming learned helpless. Consequently it becomes imperative that cognitive behavioral therapy and other forms of mind restructuring therapy be included in the health routine of amputees. With this consideration, it is expected that it will yield positive effects in mitigating against learned helplessness among amputees and improve their overall quality of life.

Secondly, a significance of the role of social support in predicting psychological distress was reported in most studies. This significance may be due to the expectation that when people facing stress are surrounded by others from whom they can draw strength and support from, such people are very likely to rise above such stress. Consequently, it becomes imperative that through encouraging the involvement of amputees in social activities, or encouraging them to enroll in social clubs, this may be a pathway for increasing the social support system of amputees. In addition, through psychotherapies such as family therapy, couple therapy or group therapy, the social support system of amputees could also be strengthened.

Lastly, observed significance was reportedly observed on some socio-demographic information of amputees on psychological distress. Consequently it is imperative to consider certain socio-demographic information such as age, marital status, socio-economic status, duration of amputation, and sex of amputee during case management with amputees.

8. Recommendation

The following are the recommendations from this meta-analytic study:

1) Firstly, it is recommended that clinical psychologists should include mind restructuring therapies in the case management of psychological health of amputees.
2) Secondly, periodic assessment of psychological wellbeing of amputees should be carried out among clinicalpsychologists.
3) Thirdly, it is recommended that governments and private individuals should develop more social welfare organizations that caters for the social needs of amputees in order to strengthen the social support system of amputees.
4) Fourthly, it is also recommended that appropriate coping skills that will help amputees adapt to their plight should be taught to amputees.
5) Lastly further studies will be required to find other psychosocial barriers that limit the psychological wellbeing of amputees using a longitudinal approach. Further studies may also extend this study to other population living with life threatening events.

9. Limitation of Study

This study which was a meta-analytic study consequently deployed a secondary data collection method, hence the benefits of this study may be limited to the benefits of a secondary data collection method. Nonetheless, this study still contributes extensively to knowledge and bridges some knowledge gaps on the psychosocial predictors of psychological distress among amputees.

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