

## Impact of Emotional Reactions on Patients' Recovery from Physical Illness: Implications for the Medical Social Workers

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**ABSTRACT** The study examined the impact of emotional reactions on recovery of patients from physical illness. It also examined their implications for the medical social workers. The study was carried out among 147 physically-ill patients in six selected government-owned hospitals in Oyo State, Nigeria. A single questionnaire tagged "Emotional Reactions and Recovery Assessment Questionnaire (ERARAO)" was developed and used for the study. Two hypotheses were formulated and tested; using analysis of variance (ANOVA). The hypotheses were tested at 0.05 level of significance. The study established that happiness has significant impact on recovery from physical illness ( $F = 11.589$ ,  $df = 1/146$ ,  $p < .05$ ). It also established that anxiety and depression have significant impacts on recovery from physical illness ( $F = 3.796$ ,  $df = 1/146$ ,  $p < .05$ ). These findings have many useful implications for the medical social workers in Nigeria and in other parts of the world. Hence, it was recommended that the medical social workers have to give adequate attentions to the psycho-social needs of the patients. They have to assist the poor and helpless patients to overcome their financial, emotional, social and material problems in order to experience rapid recovery.

### INTRODUCTION

It is apparent that adequate medico-surgical treatments and good nursing cares provide cure for the physical illness of the patients. However, some psychological states facilitate or hinder early recovery of the patients from their physical illnesses. While some sick individuals get over their illness very quickly, it takes other individuals longer periods of time to recuperate (Mann et al. 1981; Mackenzie et. al. 1987). One then becomes amazed to see some deteriorating conditions in the patients, despite quick and adequate treatments given to them by the medical and nursing staffs. The reason for this is not far fetched. Attitudes of sick individuals to illness, and response to hospitalization, medical treatments and recovery depend on individual's emotionality, which can be defined in different ways.

Emotion is a subjective experience (Altschul 1975). It is characterized by bodily symptoms or physiological changes. It is a state of pleasant or unpleasant experience or violent intense feeling like excitement or quiescence (Hilgard et al. 1979). According to Bourne and Russo (1998), emotion is internal feelings that energise behaviour.

Zastrow and Kirst-Ashman (2004) defined emotion as the complex combination of feelings and moods that involves subtle psychological reactions and is expressed by displaying characteristic patterns of behaviour.

Altschul (1975) identified how different emotions can be aroused in sick individuals. According to him, pleasant emotions of joy, cheerfulness, happiness, love and affection arise from kindness, concern, and attentions given to the patients by their relatives, friends and health care-givers. They also arise from the trust and confidence the patients have in the health care-givers, from adequate security provided to them during the periods of illness and hospitalization, from good news about the family left at home, from financial, material, emotional and other social supports that patients receive during the periods of illness.

In contrast, unpleasant emotions like fear, anxiety, anger, grief, sorrow and depression stem from the stigma of illness, lack of hospital security, fear of the unknown, fear of surgery, fear of anaesthetic agents, fear of becoming invalid or disabled, guilt feeling or shame about illness, from concern about the family left at home and from lack of moral, financial and material supports during the periods of illness.

Emotions have both positive and negative valences. They may be useful or harmful. Mild emotional states are tonic and helpful, while strong emotional states are disruptive. When pleasant and unpleasant emotions become stimulated in individuals, they give rise to physiological or bodily changes called emotional responses. For instance, pleasant emotions of joy,

cheerfulness, happiness, love and affection elicit emotional responses like laughing, smiling, yelling, joking, singing, clapping, and dancing. Unpleasant emotions of fear, anxiety, anger, sorrow, grief and depression affect body tissues and organs (Sumrall 1988). They bring forth emotional responses like palpitation, tense muscle, rapid pulse, flushing, pallor of the face, trembling voice, widely dilated pupils, dryness of the throat or mouth, asthma, stomach ulcer and hay fever.

These responses have positive and negative consequences on patients health and recovery. Emotional responses of laughter, smiling, joking, singing, clapping, dancing and so forth, which accompany emotions of joy, cheerfulness, happiness, love and affection, have positive effects on patients' health and also facilitate their early recovery from physical illness (Altschul 1975). Hilgard (1962) opined that if a patient is in a gay mood he may see minor set-back as amusing challenges, and take them as his strides. On the other hand, if he is in a disturbed mood, he may see the same set back as occasion for anger and despair. When a patient is in this higher mood, he feels happy, becomes cheerful and even jokes with other patients. Such a patient would respond well to his hospitalization, medical treatment and recover quickly from his/her illness.

The present study is therefore, based on the premise of how positive emotions can be enhanced and negative emotional reactions or feelings can be reduced in the physically-ill patients to enable them experience rapid recovery from their illness.

### REVIEW OF RELEVANT STUDY

Some studies had empirically documented the effects of emotional reactions on recovery from physical illness or their relationships with it (Bell et al. 1990; Knapp et al. 1992; Mojoyinola 1998; Melamad et al. 1999). Mojoyinola (1998) in his study among the physically-ill patients found that emotional reactions had positive and negative correlations with recovery from physical illness. Melamad et al. (1999) in their studies on how emotional reactivity and debilitating beliefs during hospitalization predict future adjustment to first myocardial infarction in men, found that work engagement was indirectly related through emotional distress to earlier emotional reactivity and debilitating beliefs. They also found that

social activities involvement was both directly and indirectly related through emotional distress to debilitating beliefs, and negatively related to debilitating beliefs, and also indirectly related through emotional distress to emotional reactivity.

Furthermore, they found that ambulation/independence was directly and negatively related to debilitating beliefs. Illness preoccupation turned out to be an independent outcome that was positively related to emotional reactivity. Their studies revealed that measuring the emotional reactivity and debilitating beliefs of patients at the hospitalization stage will help in detecting those that are at risk of poor future adjustment.

Few published studies have investigated the effect of emotional experiences on immune function. For instance, Knapp et al. (1992) in their study asked health volunteers to recall and re-experience disturbing emotional experiences under conditions of cardiovascular, video and immunological monitoring via catheterization. They reported that the induction of negative mood was associated with poorer Lymphocyte response to challenge particularly related to the experience of anxiety. They also reported that brief increase in natural killer cell activity were associated with the experience of sadness.

Observation of children who are socially and behaviourally inhibited have revealed that this group showed greater autonomic reactivity to stress than others, as well as a significantly greater incidence of allergic rhinitis (Bell et al. 1990).

Balon (2006) examined recent articles that have investigated the relationship between mood, anxiety, and physical illness (e.g. asthma, cancer, cardiovascular etc.). He discovered a growing evidence of overall negative impact of depression and other mood states, and anxiety on numerous physical illnesses and conditions, and their outcomes.

Study by Carney et al. (2001), has demonstrated an association between depression and low heart rate variability in patients post-myocardial infarction (MI).

Benninghoven et al. (2006) also attempted to elucidate whether and how anxiety influences the course of events following acute myocardial infarction. They found that both depression and anxiety seem to be negative predictors of cardiac events following myocardial infarction (MI).

Carr et al. (2005) in their study, sought to explore the impact of psychological or emotional

variables (anxiety and depression) on pain experience over time following surgery.

They assessed eight-five women having major gynecological surgery for anxiety, depression and pain after surgery. Pre-operative anxiety was found to be predictive of post-operative anxiety on Day 2, with patients who experienced high levels of anxiety before surgery continuing to feel anxious after wards.

They also found that by Day 4, both anxiety and depression scores increased as pain increased and one-third of the sample experienced levels of anxiety in psychiatric proportions, whilst under one-third experienced similar levels of depression.

There is some empirical evidence that perceptions of control over emotional responses predict psychosocial adjustment to life stressors. After controlling for physical functioning and marital satisfaction, Thompson et al. (1993) found that perceived control over emotional reactions accounted for 46% of the variance in psychosocial adjustment among cancer patients.

Gilbar and Refaeli (2000), in their study found significant positive correlation between symptoms of psychological distress in adult patients with cancer and their parents. In contrast, several studies found that the recurrence of cancer was related to higher psychological distress in patients (Cella et al. 1990; Pinder et al. 1993; and Fulton 1998).

The studies reviewed above, show that emotional feelings or reactions experienced by the physically-ill patients affected their physical health and recovery adversely.

It is therefore, hoped that when the physically-ill patients experienced high level of pleasant emotions and reduced level of unpleasant emotions during the periods of their illness, they will get over such illness as quickly as possible.

## METHODOLOGY

**Research Setting:** The study was carried out in six selected government-owned hospitals in Oyo State, Nigeria, namely, State Hospital, Ring road, Ibadan, State hospital, Oyo State Hospital, Ogbomoso, General Hospital, Okeho, Jericho Orthopaedic hospital, Ibadan and Government Chest hospital, Ibadan.

The study was carried out among patients having physical illness such as lobar pneumonia, hypertension, pulmonary tuberculosis, hepatitis,

typhoid fever, congestive cardiac failure, fracture, dislocation and burns.

**Research Design:** The Descriptive Survey research design was adopted for the study.

**Population and Sample:** All patients admitted and treated for physical illness in the selected hospitals constituted the research population.

In all, a total number of 147 physically-ill patients were randomly selected and used as sample for the study.

## Instrumentation

A single-questionnaire tagged "Emotional Reaction and Recovery Assessment Questionnaire (ERARAQ) was developed and used for the study. It is an instrument which measures emotional reactions and recovery of physically ill patients. It contains 73 items drawn from different sources. The instrument is divided or grouped into four sections, measuring demographic variables, levels of happiness, anxiety, depression and patients' recovery from physical illness. Items measuring the level of happiness were drawn from Akinboye (1983). Happiness behaviour rating scale. Items measuring emotional reactions or feelings were drawn from Zung (1975) Anxiety Status Inventory (ASI) and Depression Status Inventory (DSI), while items measuring the recovery of patients were drawn from Chicago consortium for Stigma Research (2006) Recovery Assessment scale.

The instrument used for the study was reliably validated yielding Cronbach alpha value of 0.81.

## Procedure

Patients selected as sample were given a copy of the questionnaire to complete. They were asked to indicate the option that best represents the emotional feeling they experience during the periods of their illness and how they recover.

The Nursing Officer in charge of the wards or units of the hospitals used assisted or guided the patients (especially the illiterate patients) to complete the questionnaire. 147 copies of the questionnaire that were properly completed were used for final analysis.

## Hypotheses

i. There will be a significant impact of happiness on recovery from physical illness.

ii. There will be a significant impact of anxiety and depression on recovery from physical illness.

### ANALYSIS AND RESULTS

The two stated hypotheses were put to test by using analysis of variance. The results of the analysis were described below.

**Hypothesis I:** There will be a significant impact of happiness on recovery from physical illness. The hypothesis was put to test, using analysis of variance. This was based on scores obtained on items measuring level of happiness of the patients and their level of recovery. The results obtained from the test are summarized in table 1

Table 1 presents the impact of happiness on recovery of the patients from their physical illness. The table reveals that there was a significant impact of feelings of happiness on recovery from physical illness ( $F = 11.589$ ,  $df = 1/146$ ,  $P < 0.05$ ).

The result gives support to the hypothesis, hence it was accepted. The above result is consistent with the finding of Mojoyinola (1998) that feelings of happiness had significant positive correlation with rate of patients' recovery from physical illness.

Also, the result gives support to the finding of Schonfield (1972) that cancer patients who had significant lower scores on the morale loss scale and significant higher scores on the well-being scale of the MMPI recovered faster from their illness than the patients who had significantly higher scores on the moral loss scale and significantly lower scores on the well-being scale of the MMPI.

The above result suggested that the physically-ill patients felt cheerful and not greatly disturbed during the crisis of their illness and this helped them to recover quickly from their illness. Therefore, it becomes imperative that the physically-ill patients need to be in a happy or cheerful mood during the periods of the illness in order to experience rapid recovery.

**Hypothesis II:** There will be a significant impact of anxiety and depression on recovery from physical illness. The hypothesis was tested, using analysis of variance. This was based on scores obtained on items measuring anxiety, and depression and on items measuring recovery from physical illness. The results obtained from the test are summarized in table 2.

Table 2 reveals that there was a significant impact of anxiety and depression on recovery from physical illness ( $F = 3.796$ ,  $df = 1/146$ ,  $P < 0.05$ ). This implies that high levels of anxiety and depression prevented the patients from recovering quickly from their illness.

The result is in line with the finding of Mojoyinola (1998) that depressive feelings correlated negatively with rate of patients' recovery from physical illness.

The above result is consistent with the finding of Zyzanski et al. (1981) that cardiac patients having type A personality (Anxiety) recovered poorly from their major heart surgery. The result is also in line with the finding of Benninghoven et al. (2006), that both depression and anxiety are predictors of cardiac events following myocardial infarction.

However, the result is not in line with the

**Table 1: Analysis of Variance (ANOVA) showing the impact of happiness on recovery from physical illness**

Source of variance	Sum of squares	df	Mean square	F-calculated	F-critical	P	Remark
Within group variance	122.059	1	122.059	11.589	2.75	0.05	Significant
Between group variance	1537.691	146	10.532				
Total variance	1659.750	147					

$F = 11.589$ ,  $df = 1/146$ ,  $P < 0.05$

**Table 2: Analysis of Variance (ANOVA) showing the impact of anxiety and depression on recovery from physical illness**

Source of variance	Sum of squares	df	Mean square	F-calculated	F-critical	P	Remark
Within group variance	63.891	1	63.891	3.796	2.75	0.05	Significant
Between group variance	2255.373	146	16.831				
Total variance	2319.265	147					

$F = 3.796$ ,  $df = 1/146$ ,  $P < 0.05$

finding of Hughes (1982) that cancer patients who developed depressive symptoms within the first six months after their surgical operation were much more improved by the end of the follow-up period.

Based on the above findings, it becomes imperative that the physically-ill individuals be helped to experience reduced symptoms of anxiety and depression in order to recover quickly from their illness.

### IMPLICATIONS FOR THE MEDICAL SOCIAL WORKERS

Emotional reactions affect patients' health and recovery from physical illness in both positive and negative dimensions. These have far-reaching implications for the medical social workers in Nigeria, and other parts of the world as enumerated below.

1. The medical social workers should reduce high level of fear, anxiety and depression in the newly admitted patients so as to help them recover quickly from their illness. They should encourage them to be less emotionally worried about their illness, hospitalization, surgery or feel concerned about their jobs or members of their family left at home. They should give reassuring words to the patients. They should let them know other patients who have similar health problem with them, or who had been previously treated successfully.
2. The medical social workers have to make sure that adequate security is provided to the patients during the periods of their hospitalization. They should see that hospital wards are conducive for patients' living. They should also make sure that the patients are not neglected or made to feel isolated.
3. They should give adequate attention to the psycho-social needs of the patients. The medical social workers should help the poor and helpless patients to obtain financial, material and other social support from the government, welfare agencies, charity organizations and philanthropic individuals in the society.
4. They should give humane treatments to the patients throughout the periods of their illness and hospitalization. They should feel concerned, have sympathy and empathy for every patient. They should treat every patient as an individual who has fears and hopes,

quite different from the fears and hopes of other patients.

5. The medical social workers should help the patients to become aware of their psycho-social problems, and know how to overcome them. They should engage the patients in case work, group work, individual or group psychotherapy and counseling sessions, through which the patients can gain insight into their problems and acquire skills, individual or group experience necessary for solving them.
6. They should give emotional or psychological support to the patients during the crisis of illness, pre-operative and post-operative periods. They should encourage the patients to bear the pains associated with their illnesses, expect favourable outcomes from medical treatment, and hope that they will recover from their illnesses or surgical operations in time. They should encourage the patients to avoid negative feelings, beliefs, and thoughts in order to experience reduced symptoms of negative emotions.
7. The medical social workers should promote mental and social well-being of the patients. They should see that patients feel comfortable, relaxed and sleep adequately during the day or night. They should engage depressed patients in some recreational activities (e.g. Ludo, cards, checkers, ayo game, etc) in order to divert their minds from their physical and psycho-social problems. They should also teach the patients anxiety reducing and rewarding skills.

### CONCLUSION

It can be summarily concluded that when the physically ill patients receive adequate medical treatment, good nursing care, and prompt social work interventions from the health care-givers or receive adequate financial, material, emotional and other social support from their relatives during the period of illness they will feel happy, become emotionally satisfied, experience reduced symptoms of negative emotions, recover early from their illnesses, and stay less in the hospital.

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