



Income Level as a Determinant of Prioritized Personal Worries of Care Among Caregivers of Cancer Patients

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Abstract

This study examined income level as a determinant of prioritization of worries of care among caregivers of cancer patients at Federal Teaching Hospital, Abakaliki (FETHA). The participants employed for the study were 27 female caregivers of cancer patients selected through the use of total population sampling technique. Their age ranged from 22 – 55 years, with a mean age of 39.77 and a standard deviation of 12.77. The instruments administered on them were Zarith Burden Interview (ZBI) and Worries of Caregivers of Cancer Patients' Scale (WCPCS). Data on income level was collected via demographic section of the study instruments. Quasi-experiment which allowed one – way analysis of variance (ANOVA) was adopted to test the hypothesis. The result showed that income level influenced the priority pattern of personal worries of care of the participants. It was recommended that subsidized health schemes should be made available for all citizen to redefine their perceived economic decrease due to caregiving.

Keywords: Poverty, Income Level, Worries of Care, Caregivers, Health Determinant

Introduction

Issues that bring worries tend to arise from situation(s) that one is anxious about or is not sure of how to deal with. Assuming the role of a caregiver is one that requires a given person to likely suspend (at least momentarily) activities or roles he/she plays in their other life domains (e.g., work or academic). In a situation that a caregiver affords to meet

with the expected roles of different domains of their life even as they render care, the possible stress from the demands of such roles is likely to leave a caregiver to worry with how to deal with them, too.

Generally, caregivers are increasingly called upon to provide daunting and complex tasks for their relatives with chronic illness (Lim & Zebrack, 2004). It is such that they perform practical medical tasks for patients such as helping with shopping, transportation, hygiene, feeding, companionship, cooking, emotional support, and treatment administration (Frank & Stephens, 1992; Laizner et al., 1993; Liu et al., 2020), among others. It is also such that caregivers deal with coordination of care, including disability, mobility, and dressing (Lim & Zebrack, 2004). In fact, studies estimate that caregivers provide an average of 55% of care needed by chronically ill patients (Social Cultural Plan Bureau, 1994). In attending to these expected responsibilities, scholars have reported that such demands are detrimental to health (Chamber et al., 2001), and that it has all the features of chronic stress experiences, for it tends to create physical and psychological strain over a long period of time (Vitaliano et al., 2003). Actually, clinical and empirical research have shown that assuming a caregiving role can be stressful and burdensome (Biegel et al., 1991; Ojifinni & Uchendu, 2022).

Worries of caregivers of cancer patients emanate from the burden of care they experience as they help cancer patients in the hospital, and Marieke and Maude (2005) alluded that it arises because such burden typically requires substantial amount of time and energy for months or years and is physically, mentally, financially, and social tasking. Accordingly, burden of care refers to a multi-factorial construct which includes emotional, psychological, physical and economic impact of giving care to a patient/elderly person (Nuhu et al., 2010), and its impact can be seen from objective and subjective perspectives (Rein et al., 2003). Thus, the cost of cancer goes beyond the number of lives lost and new diagnosis made each year, to extend to worries of care of caregivers of cancer patients as they perform their role of caregiving.

Specifically, worries of care refer to personal worries that caregivers of cancer patients have following the impact of burden of care (Okpala, 2016). For example, such worries may arise from the possibility that the cancer patient may die eventually from the illness (since it is a terminal illness) (subjective perspective), or that the income level of the caregiver or of those sponsoring the treatment may not be enough to foot the treatment bill (i.e., worries based of finance) (objective perspective). A study by Okpala, (2016) reported that caregivers of cancer patients present with worries of care bothering on survival, provisional, attachment, financial, career, and treatment concerns. Such worries appear to have negative effects on the health of caregivers of cancer patients, in particular, and the quality of care they render to cancer patients, in general. Income level of such caregivers may be a factor determining who among the caregivers will present with highest level of worries of care via how the burden of care impacts on their health and wellbeing. Scholars (e.g., Blackburn 1994; Grant 1977; Salkever 1975; Wilkins et al., 1989) have reported that income have profound effects on an individual's health. Macinko et al. (2010) also noted that important finding has been that better health outcomes appear to be positively correlated with absolute levels of income.

Statement of the Problem

The use of income levels to find out which category among the participants would present with highest level of worries, was necessitated by the latest update of poverty and inequality platform (PIP) of World Bank. Aguilar et al. (2022) reported that US\$2.15 is now used to define extreme global poverty line, with US\$3.65 defining the poverty line for lower middle-income countries (LMICs) and US\$6.85 for the poverty line for upper middle-income countries (UMICs). Falling below the poverty line may influence the effort a caregiver makes to take care of his/her own health, since caregiving has been identified to be detrimental to health (Chamber et al., 2001). This appears so for income inequality has been found to be associated with health implications, which may as well affect how a caregiver may be affected with the worries of care. Kahn et al. (1998) reported that income inequality led to higher abdominal weight gain among United States' (US) men. Also, income level appears to determine a caregiver's likelihood to present with highest level of worries of care in a situation that a caregiver have to 'stand by' and observe the disease

progress while being unable to foot the bill of possible alternative costly cancer treatment method. Such situation as this can predispose to negative mental health impact (e.g., depression) for the caregiver. Kahn et al. (2000) found that women in the lowest income category were more likely to report depressive symptoms or poor health. Besides, Herd et al. (2007) stated that greater access to money can enable individuals to purchase expensive medications to manage chronic illness or prevent the onset of additional chronic conditions.

A situation that a caregiver has no source of income or somebody to depend on for his/her upkeep, academic pursuit, etc, if the cancer patient dies, can influence level of worries of such caregivers. Equally, income levels of the study's participants may influence the degree of worry to present in a situation that they face inadequate finance to take care of the patient, their survival kins, or themselves that render the care. In consideration that literature and knowledge gaps exist with regard to how income level of caregivers of cancer patients determines the degree of expression of level of worries of care, taking cognizance that Centre for Disease Control (CDC) (2012) noted that the financial cost of cancer is overwhelming, this study becomes imperative.

Purpose of the Study

1. To examine if income level would determine who presents with highest level of worries of care among caregivers of cancer patients at FETHA.

Literature Review

Worries of care are consequent upon the demand of a caregiver to focus on patient's welfare and direct attention to their distress rather than to one's own emotional state or need. The key mechanism for achieving these goals is said to be the adoption of what Batson (1991) called an 'empathic stance' toward others' suffering; that is, taking the perspective of the distressed person to sensitively and effectively help him or her reduce suffering and distress. Such stance appears likely to make caregivers have decreased social interaction (Scholte et al., 1998), work in excess of normal working hours (Olson, 2009), have a serious challenge in the area of having time for themselves, and following their decreased social interaction, to likely become vulnerable to social loneliness, among others.

Montgomery and Kosloski (2000) stated that caregiving role emerges out of an existing role relationship, usually a familial role such as daughter, wife, or husband, and following that, they are referred to as informal caregivers. These scholars further observed that it is the incongruence between the caregiving tasks and personal identity standards (the personal expectations or rules that individuals use to define “appropriate behaviour” for themselves) that is observed to cause caregivers’ distress, as well as predispose them to worries of care that is consequent upon burden of care they experience.

Burden of care is fraught with feelings and emotions which may tend to come as a direct impact of the factors influencing caregiving, or indirectly following the interpretations these caregivers may be deducing from the role they play. Feelings and emotions are inextricably related in this. While giving care, some of these caregivers may focus on the affective responses possibly to have been elicited by their act of caregiving. Many decades ago, Munn (1966) noted that when emotionally aroused, one feels such experience as pleasantness, excitement, happiness, sadness, fear, anxiety and so on. Consequently, observation has shown that human emotion has cognitive, behavioural and affective implications, and these components can play a role in the development of burden of care.

Accordingly, Schacter-Singer (1962) theory of emotion posits that an emotion-arousing event causes physiological arousal and demands one to examine the external environment to help interpret that event. Thus, it is the combination of physiological arousal and a cognitive label that produces an emotional experience. The Schacter-Singer theory upholds that expression of emotion resulting from an experience like rendering care to cancer patients is a combination of physiological and cognitive factors. This implies that emotions, perhaps, surrounding their caregiving may be expressed by physiological process and a cognitive interpretation of the caregiving scenario. This may now in turn influence their emotional reaction to caregiving based on their physiological arousal and their cognitive interpretation, with the possibility of the eventual outcome of the two resulting to burden of care.

Again, the opponent process theory of Solomon (1980) has two central assumptions. The first is that emotional reactions to a stimulus are followed automatically by an opposite reaction, and the second is that repeated exposure to a stimulus causes the initial reaction to weaken and the opponent process to strengthen. Opponent-process theory occurs whether the initial feeling is positive or negative. The first feeling is aroused by its adequate stimulus, but after this stimulus ceases, one's feelings seem not to return directly to its normal level, except in rare cases (Solomon, 1980). Instead, a second state which is in opposition to the first feeling aroused will appear, and this second state has been indirectly activated by the first feeling process (Solomon, 1980). The second feeling, after persisting for a while will also disappear (Solomon, 1980). Thus, opponent-process theory suggests that an emotional reaction to an event, for example, sadness, is immediately followed by the opposite form of emotion such as joy. Precisely, a caregiver who approaches the caregiving scenario with fear, apprehension, anxiety, and sadness, with longer exposure may in turn experience the opposite form of emotions like happiness, optimism and joy. Thus, suggesting that such a caregiver's initial fear, apprehension, anxiety and sadness may be weakened with continuous exposure to caregiving experiences.

Scholars have previously reported that burden of care is present among caregivers. For example, it was reported that caregivers of patients with schizophrenia (Abdulkareem et al., 2009; Martyns-Yellowe, 1992; Ukpong, 2006), dementia (Akinsola, 2001; Ukpong & Makanjuola, 2003), and elderly persons (Ojifinni & Uchendu, 2022) experience burden of care while caring for their relatives. Also, Nuhu et al. (2010) reported that caregivers of patients with epilepsy experience significant burden while caring for their relatives. In a study done by Dada et al. (2011) on factors associated with caregiver's burden in a child and adolescent psychiatric facility in Lagos, it was reported that moderate to severe burden was recorded among 25.2% of caregivers. Previous study by Ohaeri et al. (1999) on psychosocial burden of caring for some Nigerian women with breast and cervical cancer, reported, among others, that caregivers of cancer patients reported high burden, with their greatest concern being what will happen to their relatives in future when they (the caregivers) may not likely be available to look after them. In a review done by Ohaeri (2003), which focused on publications around 2002, this scholar made a synthetic overview of the broad range of issues in the field of family/informal caregiver's burden for

all categories of mental disorders. Accordingly, it was observed that high expressed emotion found among caregivers may indicate the family's attempts to help the patient. In line to offer this help, income level of caregivers appears to be a factor that can determine who among them will present with highest level of worries of care. Moreover, scholars (e.g., Adler & Stewart, 2010; Ploubidis et al., 2011), through psychosocial pathway, proposes that low income exposes people to stressful circumstances such as limited control and autonomy at work, and poor balance between home and work.

According to this pathway, lack of material opportunity might lead to a lack of hope and consequently depression or hostility, which jeopardizes health, directly or through health compromising behaviors (Kroenke, 2008). At the same time, those with low financial resources are less likely to have poor social support (Blaxter, 1990). Psychosocial pathway further observed that severe or chronic stress (e.g., such that emanates from caregiving) has been found to have negative effects on health when the individual does not have sufficient social and psychological resources to deal with its emotional impact (Adler & Stewart, 2010).

Besides, stress can have a direct negative effect on biology and physiology, with psychosocial factors ameliorating these effects (e.g., good social support, high socioeconomic status, etc.) or exacerbating them (e.g., low socioeconomic status, job demands, etc.) (Benzeval, et al., 2014). As such, stress and poor social support are related to poor health and have a greater effect on those at the bottom of social hierarchies (Wilkinson 1996, 1998). Marmot et al., (1991) observed that this hypothesis is supported by the Whitehall study that shows a continuous social gradient in health, that is, within a social (or economic) hierarchy, individuals at a given level in a hierarchy tend to exhibit poorer health than individuals in the next highest level of the hierarchy.

According to Theodossiou and Zangelidis (2009), acute and chronic stressors (like such that arising from caregiving) have been related to changes in physiological regulation and emotional responses leading to poor health. In line with this, a description of how low income can expose people to jobs with low autonomy and control (stressful circumstance),

which can lead to negative emotions (either depression or hostility), which in turn creates sustained physiological reactivity affecting the immune and cardiovascular systems was offered by Klabbbers et al. (2009). Pearlin et al. (2005) noted that individuals with the least income are likely to suffer most from stressors, with economic deprivation being a likely cause. Mackenbach (2012) asserted that behaviours have been employed in recent times to indicate social distinction. In line with this, this scholar stated that individuals indicate their social position through how they behave, and in particular, how they invest in their health and future health by adopting behaviours that aim to increase health and wellbeing.

Generally, income level as a possible determinant of who presents with highest level of worries of care among caregivers of cancer patients appears integral for optimal performance of these caregivers in their caregiving role, for a diagnosis such as cancer influences not only the patient but also the significant others in many respects, especially those bearing the burden of patient's care. As more people are diagnosed with cancer, so will the number of those who will bear the burden of caring for them increase.

Hypothesis

We postulated that:

1. Income level would determine who presents with highest level of worries of care among caregivers of cancer patients at FETHA.

Method

Participants

The participants for this study were 27 female caregivers of cancer patients at Federal Teaching Hospital, Abakaliki (FETHA), who met the inclusion criteria. Their age ranged from 22 – 55 years, with a mean age of 39.77 and a standard deviation of 12.77. They were selected from male surgical ward, female surgical ward, orthopaedic ward, and gynaecology ward. Data showed that 9 (33.33%) participants came from male surgical ward (giving care to prostate cancer patients), 8 (29.62%) participants came from female surgical ward (caregivers giving care to breast cancer patients), 1 (3.70%) participant came from orthopaedic ward (caregiver giving care to rhabdomyosarcoma cancer patient),

and 9 (33.33%) participants came from gynaecology ward (caregivers rendering care to ovarian cancer patients). Data further showed that 13 (48.14%) participants belonged to the poor income level category, 9 (33.33%) belonged to middle income level category, and 5 (18.51%) belonged to rich income level category.

Measures

Two sets of instruments used in this study included Zarit Burden Interview (ZBI) and Worries of Caregivers of Cancer Patients' Scale (WCPCS). ZBI is a 22-item instrument developed by Zarit et al. (1980) to measure factors most frequently described by caregivers as problematic, such as their physical and psychological health, finances, social life, and the relationship with the patient. Each item is responded to on a 5-point Likert scoring pattern. Akinsola (2001) reported a 3-week test-retest reliability coefficient of .75.

On the other hand, WCPCS is a 20-item instrument developed by Okpala (2016) to measure the specific personal worries of caregivers that result from burden of care. Each item is responded to on a 5-point Likert scoring pattern. It has .89 Cronbach's alpha reliability coefficient, .58 convergent validity with ZBI (Zarit et al., 1980), and -.17 for discriminant validity with life Satisfaction Index – Z (LSI-Z) (Neugarten et al., 1961).

Data on income level was obtained via demographic section of the study instruments. Participants indicated where they fall on the income ranges and occupational status provided by the researcher which was predicated on the World Bank categorization of low-income level, middle-income level, and high-income level.

Procedure

Ethical approval was obtained from Research and Ethics Committee (REC) of FETHA, and only participants who met the inclusion criteria were employed. The criteria were: 1) that the caregiver must have been in the hospital rendering care to a cancer patient, 2) that she must show willingness on voluntarily bases to participate in the study, 3) that she must sign and return the informed consent letter to the researcher before being administered the instruments, 4) that she must obtain a score on ZBI classifying her as presenting with mild to moderate burden, or moderate to severe burden, or severe burden before being

administered WCPCS, and 5) that she must have a source of income. Meanwhile, the participants were selected using total population sampling technique. It a type of purposive sampling technique of non-probabilistic sampling method that refers to employing all the participants of interest seen in the field of study that met the inclusion criteria and are willing to participate.

Design and Statistic

This is a survey study that used descriptive research design. One-way analysis of variance (ANOVA) statistic was employed to test the hypothesis postulated.

Result

Table 1

Summary Table of Means and Standard Deviations of Income Level as a Determinant of Prioritization of Worries of Care among Caregivers of Cancer Patients

Income	Mean	Std. Deviation	N
Poor	73.4615	3.50275	13
Middle	80.8889	4.64878	9
Rich	88.4000	1.67332	5
Total	78.7037	6.79827	27

Table 2

Summary table of One-Way Analysis of Variance on Income Level as a Determinant of Prioritization of Worries of Care among Caregivers of Cancer Patients

Source	Type I Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	870.310 ^a	2	435.155	31.522	.000
Intercept	167245.370	1	167245.370	12114.853	.000
Incoml	870.310	2	435.155	31.522	.000
Error	331.320	24	13.805		
Total	168447.000	27			
Corrected Total	1201.630	26			

a. R Squared = .724 (Adjusted R Squared = .701)

From Table 2 above, result showed that income level significantly determines worries of care among caregivers of people living with cancer at FETHA, $F(1, 27) = 31.52, p < .05$. Table 1 indicated that their mean scores were: low income level = 73.46, middle income level = 80.89, and High income level = 88.40

Discussion

The study examined if the income level influence prioritized personal worries of care among caregivers of cancer patients. The result showed that this assumption contributed to an adjusted R^2 value of 70.1%. It also showed that the less income a caregiver of cancer patient has, the more likely he/she will present with highest level of worries of care. Hence, low level significantly influences a number of factors in the health system, including, as examined in this study, who among caregivers of cancer patients would present with highest level of worries of care. Unfortunately, presenting such worries of care, can in turn influence their wellbeing negatively affected, as well as their performance as caregivers.

Such finding as this agrees with findings of previous studies (e.g., Blackburn 1994; Grant 1977; Salkever 1975; Wilkins et al., 1989) that reported that income have profound effects on an individual's health, as well as with the observation made by Macinko et al., (2010). Equally, this finding agrees with other previous studies (e.g., Abdulkareem et al., 2009; Akinsola, 2001; Dada et al., 2011; Martyns-Yellowe, 1992; Ukpog, 2006; Ukpog & Makanjuola, 2003) that reported the presence of burden of care among caregivers, in

general, and with the finding of Ohaeri et al. (1999) that reported the presence of high burden of care among caregivers of cancer patients, in particular. In addition, this finding further revealed that as Ohaeri et al. (1999) reported, that caregivers of cancer patients presented with greatest concern of what will happen to their relatives in future when they (the caregivers) may not likely be available to look after them. Thus, caregivers belonging to poor income level category in this present study presented with highest level of worries of care among the three groups compared.

Implication

The finding is necessary in knowing how personal worries of caregivers may be exacerbated by their actual and perceived income level. It follows that they need money to run some expenses, considering that the cost of treatment and other ancillaries are huge. Ignoring sense of worth and perceived efficacy associated with income level and how such translate to healthy disposition during caregiving, could be very limiting.

Recommendation

Caregiving could momentarily put on hold the life engagements of caregivers that ought to increase their income level. Some of these caregivers could only make income when they sale their wares on daily basis, with rendering care being a twenty-four hour job that comes with no pay, the impact on their personal worries makes it necessary to expose such caregivers to professional assistance. One of the gains of such exposure will be to equip them with coping skills that will support by making them redefine their financial decrease in a healthier way, like interpreting their caregiving services as more important compared to money making since saving life is involved.

Conclusion

Based on the findings obtained in this study among caregivers of cancer patients at FETHA, level of income is a factor determining who among such caregivers will present highest level of worries of care. Therefore, ways of cushioning the financial billing for patients with protracted health conditions can be designed and implemented to increase the wellbeing of the caregivers.

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