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The development of Need–Threat Internal Resiliency Theory in COVID-19 crisis utilizing deductive axiomatic approach

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Abstract

Resiliency for older people represents the capacity to return to equilibrium when difficulties arise and was found as integral predictor of their health status. This study aims to develop a theory that attempts to explain the older adults' resiliency perspectives during crisis and how it has affected their well-being and quality of life as population group. Deductive theory generation using axiomatic approach was adopted resulting to five axioms that served as basis for the generation of three propositions such as: (1) An older person's health needs have tendencies to develop into a health threat, (2) when the threat is perceived, older persons developed a sense of internal control and adaptation to the changes it creates known as internal resiliency, and (3) internal resiliency can influence the quality of life in old age. The evolved theory suggests that in times of crisis (e.g., COVID-19 pandemic), health needs develop into a health threat that compels older persons to develop internal resiliency in order to preserve their integrity, wellbeing and quality of life. This study widens the nursing perspectives in addressing older persons' resiliency by the unique condition at which older clients are placed affecting both the pathological nature of the illness as well as the preventive interventions which the society is forced to implement.

Keywords

COVID-19; need-threat; internal resiliency; older adults; deductive axiomatic approach; nursing

Months have passed since the declaration of Coronavirus Disease 2019 (COVID-19) as pandemic health emergency by the World Health Organization (WHO) (D'Cruz & Banerjee, 2020; Sands et al., 2020), however the threat and impact of this virus still continues most especially among developing countries with unsophisticated healthcare system, including The Philippines. This crisis has created abrupt changes and difficulties in the daily activities and survival between populations particularly those marginalized groups, including older adults (Sands et al., 2020). The economic insecurities of most Filipino older adults increases their risk of inability to access both healthcare and other essential needs (Buenaventura et al., 2020; Lekamwasam & Lekamwasam, 2020). This pandemic crisis has created a unique threat on the context of older adults' life resulting to increased uncertainty, fears

related to contagion, illness and death, new stressors and reduces access to protective factors (Ferreira et al., 2020).

Socialization is vital to promote successful ageing and well-being among older adults (Van Tilburg et al., 2020), however this was challenged with the implementation of social distancing and other health protocols in most areas to prevent the spread of this illness among communities in the absence of effective therapeutic management (Buenaventura et al., 2020). Most older adults were usually isolated in their respective residences resulting to minimal contact with their families and friends (Buenaventura et al., 2020). This increases the vulnerability of both physical and psychosocial burden among this population group (Parlapani et al., 2020). In effect, older adults have experienced depressive symptoms, loneliness, stress, anxiety, fear, decline physical abilities, cognitive problems,

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and disruption of sleeping habits during this pandemic time (D'Cruz & Banerjee, 2020).

Social and demographic factors were known to be essential aspects affecting resiliency during any crisis as results of exposures to uneven social vulnerabilities (Ferreira et al., 2020). Older adults usually rely on their family members, friends, community groups and volunteers to meet their daily basic needs (Parlapani et al., 2020). Most people during this pandemic relies more on others to sustain their needs amidst the threat this illness has brought, and this results to decreased perspective on ones' resiliency as an individual (Ferreira et al., 2020). Literature has identified the importance of psychological, social support and connectedness as well as health behaviors as integral components of crisis resiliency (Sands et al., 2020). Resiliency is seen as a resource that enables older adults' stable performance when it comes to both internal and external imbalance within their environment (Chen, 2020). Older adults are considered resilient when they do not succumb to adversity, but rather exhibit the capacity for successful adaptation (Fontes & Neri, 2015). However, the presence of threat and the need to sustain their needs in the midst of pandemic crisis have created uncertainty and have affected their internal resiliency to adapt with such environmental circumstances.

In the process or recovering from this crisis, older adults' resilience may lead to different outcome that deserves careful attention (Chen, 2020). Older adults having good resilience tend to achieve better health outcomes resulting to successful aging and longevity (Chen, 2020; Fontes & Neri, 2015). Theories concerning older adults' resiliency and quality of life have long been established, however, in special situation such as pandemic crisis and how it has affected their internal resiliency was not looked into. Therefore, this theoretical paper aims to design a theory that explains the older adults' internal resiliency perspectives during pandemic crisis and how it affects their well-being and quality of life in specific. The study of the older persons' internal resiliency in addressing pandemic crisis such COVID19 provides a global contribution to the health and well-being of this special population who are known to have been greatly affected in this crisis. This provides a more in-depth understanding in the nursing care of older persons in this crisis focusing on their socio-psychological well-being. The nursing perspectives in addressing older persons' resiliency is widened by the unique condition at which older clients are placed affecting both the pathological nature of the illness as well as the preventive interventions which the society is forced to implement.

Methods

Deductive approach of theory development was adopted in the conduct of this theoretical research that explains the occurrence of the phenomenon under consideration. This approach follows the path of logic most closely as its reasoning begins with a theory out of the existing literatures

supporting the phenomenon under consideration and leads to a new hypothesis (Streubert & Carpenter, 2011). This theory development started with coming up with number of axioms on the interplay between the nature of older adults' resiliency and well-being amidst pandemic crisis, COVID-19 based on the literature and studies to understand the said phenomena under investigation, and eventually leads to the analysis and interpretation of propositions supporting the theory on need and threat internal resiliency among older adults.

Results and Discussion

Five (5) axioms were derived out of the literature and studies used and reviewed as basis for generating the three (3) propositions which then served as framework for the formulation of this theory on older adults' need – threat internal resiliency during pandemic crisis as presented on **Table 1**. Maslow's theory on hierarchy of needs explains that individuals irrespective of their age seeks to satisfy progressively higher human needs of which each of these levels has relevance for age-related resiliency and well-being, including older adults (Thielke et al., 2012). However, the presence of threat and other environmental crisis usually limits their capacity to maintain equilibrium, thus increases their needs for care and support from the people around them (Abdi et al., 2019; D'Cruz & Banerjee, 2020). Disequilibrium exists when individuals are exposed to stressors putting big burden both in their physical and psychosocial aspects as human beings (D'Cruz & Banerjee, 2020), depriving their independence and human needs during this trying situation (Buenaventura et al., 2020). *Therefore, human beings have needs that must be met (Axiom 1).*

Human health is dependent on internal and external conditions (Axiom 2). It is a dynamic biological mechanism that over time reflects accumulated structural and functional changes in an organism which are genetically-regulated process that is sensitive to environmental influences (Gobbens & Van Assen, 2018; Tomljenović, 2014). Human health is both biological and social beings (Tomljenović, 2014). These two factors serve as important concept in the maintenance of human health, including the quality of life and well-being of older adults (Zeng et al., 2010). Older adults functioning are products of the interplay between their internal and external environments (Tomljenović, 2014). This population group tends to be more sensitive with their physical and social surroundings and more vulnerable than other age groups with the negative effects of environmental degradation on human health and survival (Gobbens & Van Assen, 2018; Zeng et al., 2010). As people age, the presence of various medical conditions which includes multi-morbidity, disability and frailty create special needs, however a responsive environment could reduce the effect of these problems (Gobbens & Van Assen, 2018), resulting to active aging and remaining independent during old age (Schehl & Leukel, 2020; Zeng et al., 2010).

Older adults are categorized as one of the most vulnerable age group during any crisis (Parlapani et al., 2020). It is often attributed with their age-related status including decrease physical state, presence of chronic medical condition and disabilities, decline cognitive abilities and the increased probability of developing psychosocial problems during this times (Parlapani et al., 2020; Wolf et al., 2020). These factors are known to cause uncertainty that often results to various health problems among older adults (Wolf et al., 2020). Due to unexpected nature of most crisis situations such as for example, pandemic health crisis (D'cruz & Banerjee, 2020), and the higher susceptibility to acquire medical conditions, older adults are often left uncertain affecting how they should perceive, interpret as well as respond to such situation on a cognitive, emotional and behavioral level (Parlapani et al., 2020; Wolf et al., 2020).

Uncertainty of what is going to happen next often leads to worry, anxiety and even inability to function as individuals affecting ones' capacity as human being (Grupe & Nitschke, 2013). It disrupts ones' ability to prevent or mitigate the stressors negative impact (Nuevo et al., 2009). This often leads to anxiety which refers to ones' persistent, strong and irrational fear of being exposed to certain situation such as during pandemic health crisis (Parlapani et al., 2020), and is prevalent among older adults than younger people (Nuevo et al., 2009). COVID-19, for example, has induced numbers of psychological symptoms including fear and anxiety among this population group due to illness uncertainty and the significant risk or threat it poses among this age group (D'cruz & Banerjee, 2020). In fact, recent literature has revealed the prevalence of older adults' anxiety and fear has increased throughout this pandemic crisis (Buenaventura et al., 2020; Parlapani et al., 2020). *Hence, crisis and the presence of threat create uncertainty (Axiom 3).*

Health is a multidimensional aspect comprising physical, biological, psychological, economic and social factors of an individual (Pereira et al., 2015). It is an essential major component of quality of life (QLF) especially among older adults (Pereira et al., 2015; Van Leeuwen et al., 2019). Although, QLF is subjective in nature, it always depends on individuals' internal and external environments and perceptions (Pereira et al., 2015). Individuals with meaningful interpretations of life, including the absence of diseases, threat and frailty (Pereira et al., 2015), tend to have better well-being most especially during later life; the old age (Chui, 2018). In times of crisis when older adult's experiences health needs, they feel threatened because there is a need to preserve or establish one's internal resiliency so that the older person could go back to the normal self or stand up from falling down. *As such, an older person's health needs have tendencies to develop into a health threat (Proposition 1).*

Human beings have the capacity to cope or adjust (Axiom 4). Each of us normally experiences crisis and stress at a different level on a daily basis of our lives due to the various changes within and outside of our environment

(Buenaventura et al., 2020; Galiana et al., 2020). These changes often result to alterations of one's stability which greatly affects individual's well-being and quality of life, including older adults when adaptation or coping strategies is not enough. Coping is defined as individuals' efforts which aim to manage certain specific demands when one's resources are exceeded (Galiana et al., 2020). Individuals have their unique way of coping that helps them compensate or alleviate from stressful circumstances however this might be different for older persons as stressors also change with age (Ribeiro et al., 2017).

In difficult situation, such as pandemic crisis, older adults' health may worsen and even exacerbate leading to life-threatening problems as risk of complications grows. The vulnerabilities and specific needs in older age is becoming a serious challenge for survival and well-being. This problem may result to inability in accessing and sustaining the care they need during these times. As results, health need becomes a health threat and this threatens the older person, which is why a certain level of internal resiliency is developed by the older person. *Thus, when the threat is perceived, older persons developed a sense of internal control and adaptation to the changes it creates known as internal resiliency (Proposition 2).*

Well-being which includes the experience of life satisfaction, emotions, and the sense of purpose and meaning of life is closely linked with older adults' health (Parlapani et al., 2020; Steptoe et al., 2015). Literature indicates that older adults' quality of life is strongly affected by one's state of health (Steptoe et al., 2015). Older person's well-being has always been considered as essential indicator of successful adaptation during old age (Cho et al., 2011). In fact, studies suggest the state of well-being in old age may even be protective factor of health, reducing the possibility of developing chronic medical problems as well as promotes longevity and successful aging (Steptoe et al., 2015). *Hence, health is a requisite to quality of life (Axiom 5).* Successful aging does not merely rely only on clinical health status, but also on psychological and social resources of an individual most especially in times of crisis (Galiana et al., 2020). The importance of ones' perceptions of health rather than the sole count of existing threats has been proven by literature as significant determinants of older adults' quality of life and well-being. *Hence, internal resiliency can influence the quality of life in old age (Proposition 3).*

Need – Threat Internal Resiliency Theory

The effect of crisis, for example, COVID-19 pandemic (Lekamwasam & Lekamwasam, 2020) varies differently between population and the aftereffect may be more pronounced among vulnerable groups, including older adults (Gayer et al., 2020; Mukhtar, 2020). Older adults' population is considered marginalized for various reasons which includes socio-demographic aspects such as age and living condition, the presence of chronic medical condition and co-morbidities as well as declined physical and immune function to fight against stressors

(Lekamwasam & Lekamwasam, 2020), including emerging infections (Fontes et al., 2020). Due to the serious public health concern it poses among this group, older adults are often isolated and restricted from community (Gayer et al., 2020; Mukhtar, 2020). However, despite that social distancing and isolation could save lives of older people, this also increases their risk for some health issues, including loneliness, anxiety and other psychosocial problems due to social constraints resulting to ones'

inability to sustain internal resiliency in times of crisis (Fontes et al., 2020; Vahia et al., 2020). As results, older adults tend to experience lesser opportunities to be satisfied with their living and or experience happiness, resulting to poor quality of life and well-being (Parlapani et al., 2020). Recent studies have also noted reduced quality of life following social isolation among older people during crisis due to these preventive practices (Mukhtar, 2020; Vahia et al., 2020).

Table 1 Propositional structures from axiomatic extractions

Axioms	Propositions	Theory
Axiom 1. Human beings have needs that must be met.	Proposition 1. An older person's health needs have tendencies to develop into a health threat (Axioms 1, 2 and 3).	In times of crisis, health needs develop into a health threat that compels older persons to develop internal resiliency in order to preserve their integrity, wellbeing and quality of life (Need – Threat Internal Resiliency Theory).
Axiom 2. Human health is dependent on internal and external conditions.		
Axiom 3. Crisis and the presence of threat create uncertainty.	Proposition 2. When the threat is perceived, older persons developed a sense of internal control and adaptation to the changes it creates known as internal resiliency (Axioms 3 and 4).	
Axiom 4. Human beings have the capacity to cope or adjust.		
Axiom 5. Health is a requisite to quality of life.	Proposition 3. Internal resiliency can influence the quality of life in old age (Axiom 4 and 5).	



Figure 1 Schematic diagram of the Need – Threat Internal Resiliency Theory

Older adults have special needs that must be met during any crisis, these include but not limited to nutrition, physical activity, health care, communication, and socialization (Vahia et al., 2020). Positive social connections and relationships are fundamental for older adults' well-being as social beings, and the loss of these connections could have profound effects both with physical and mental health of these individuals (Gayer et al., 2020). In addition, the restricted contact with people around them has resulted to loss of financial and social support of which is significant for older people in their daily living (Bidzan-Bluma et al., 2020). As such, in order to respond to changing environmental conditions, the presence of these known threats during any crisis (e.g. pandemic crisis) and the need to sustain their individual needs as human beings for survival increases their internal resilience as human beings for adaptation and survival. *Therefore, this theory assumes that in times of crisis, health needs develop into a health threat that compels older persons to develop internal resiliency in order to preserve their integrity, wellbeing and quality of life*

(Need – Threat Internal Resiliency Theory) as illustrated on Figure 1.

Conclusion

Internal resiliency plays an important role among older people during crisis as threat and needs coexist during this unanticipated and dynamic situation. As such, when doing crisis planning and implementing intervention as well as preventive measures to curb the problem, older adult needs should be taken into careful consideration as these individuals may require more special attention and support compare with other population group. Hence, the outcome of this study has big implications for public health policy as well as in developing and implementing health services concerning older person during any disaster or pandemic crisis. The theory further provides a wider perspectives on how nurses takes care of older persons to develop resiliency in times of pandemic such as COVID19. Moreover, further studies must be conducted to validate the three proposition of this theory supporting its assumption between the relationship of health needs and threat as strong force that drives older adults' development of internal resiliency in times of crisis.

Declaration of Conflicting Interest

The authors declare no conflict of interest in this study.

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Authors' Contribution

JMS contributed to conceptualization, design, analysis and the rest of the content of the article. DRP contributed to conceptualization and analysis of this study. All authors agreed with the final version of the article.

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