CORRELATION BETWEEN PSYCHO-SOCIAL SUPPORT AND LONELINESS AMONG OLDER ADULTS IN MATHIRA SUB-COUNTY, KENYA

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DECLARATION

I, the undersigned, declare that this thesis report is a product of my own work and is not the result of anything done in collaboration. It has not been previously presented to any other institution. All sources have been appropriately cited and duly acknowledged in full.

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This research proposal has been submitted for examination with our approval as university supervisors.

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DEDICATION

This work is devoted to my children Patricia, Edwin, Susan, Angela and Dan, and my grandchildren.

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ABSTRACT

Although many studies across the world and in Kenya has focused on the elderly, limited research has given attention to the correlation between psychosocial support and loneliness in this population. The purpose of this study was to examine the correlation between psychosocial support and loneliness among older adults in Mathira West sub-County, Kenya. Adults aged 55 and above who live in Mathira West sub-county in Kenya formed the target population. Cross-sectional research design was be adopted. Purposive sampling technique was employed to select 328 participants. Multidimensional Scale of Perceived Social Support (MSPSS) and UCLA Loneliness Scale were used to collect data. Descriptive and inferential statistics such as frequencies, percentage, and logistic regression were calculated. Results indicate that the prevalence of moderate loneliness was at 27.4% and clinical loneliness at 14.4%. The risk factors for loneliness are being aged 66 and above, living alone, being single, being widowed or separated, and being a male. Also, findings indicate that the psychosocial support and loneliness are correlated. The findings of this study will inform policy formulation and planning in Nyeri County with regards to psychosocial support of the older adults.

LIST OF ABBREVIATIONS/ACRONYMS

BERA	-	British Educational Research Association
COVID-19	-	Coronavirus Disease 2019
IBM	-	International Business Machine
IYS	-	Institute of Youth Studies
MSPSS	-	Multidimensional Scale of Perceived Social Support
NACOSTI	-	National Commission for Science, Technology and Innovation
NASEM	-	National Academics of Sciences Engineering and Medicine
SPSS	-	Statistical Package for Social Sciences
UCLA	-	University of California, Los Angeles
WHO	-	World Health Organization
KNBS	-	Kenya National Bureau of Statistics

OPERATIONAL DEFINITION OF KEY TERMS

Correlation: The word correlation in this study means a measure of statistical relationship that expresses the extent to which two variables such as psychosocial support and loneliness are linearly related.

Psychosocial: It is a compound word to involve both psychological and social aspects of supports that older adults receive.

Support: In this study, the word support means the provision of comfort, encouragement, financial assistance, and prayerful uplifting to older adults.

Loneliness: Loneliness in this study is used to refer to the state of subjective discomfort and distressing experience that occurs when social connection and relationship is perceived to be less in quantity and quality. Such person can be alone without feeling lonely and can feel lonely even when with other people.

Older Adults: This study will adopt definition of World Health Organization (2019) that sets onset of aging at 55 years and above. Indicators of psychological and social support

CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter introduces the phenomenon of loneliness among the elderly people and psychosocial support from family members, colleagues and friends. The chapter will include the background to the study, the statement of the problem and the purpose of the study. The objectives, the research questions and the hypotheses will be described. The chapter will contain the significance of the study, justification, scope, assumptions, and limitations and delimitations of the study. Finally, specific operational terms that will be used in the study such as psychosocial support, loneliness, social isolation, mitigation, and older adults will be defined.

1.2 Background to the Study

Higher longevity and increased life expectancy have made aging a dominant phenomenon in the world today and this has led to rise of elderly population. Acemoglu and Restropo (2017) have estimated that the population of people over 60 years of age will be doubled in the world in 40 years' time. It has been predicted that the ratio of people above 60 years to the rest of the world population which was 11% in 2006 will reach 22% in 2050 (Lutz & Butz, 2017). According to Granic et al., (2018), the proportion of old adults in developing and developed countries will reach to 80% and 40%, respectively. The rise among these populations has become a major economic, social and health concern for health care providers, family members and societies in the world today (Bandari et al., 2019).

Sequel to changes in phase of life cycle among older adults such as retirement or age-related losses such as death of a partner or friends, as well as deteriorating health and limited mobility (Kemperman et al., 2019). At the old age, most older adults mainly prefer to remain in their own house and live independently, hence; majority of them usually experience feelings of loneliness and social isolation. According to Gardiner et al., (2018), loneliness and social isolation are major

problems for older adults and are associated with adverse mental and physical health consequences. A wide range of health consequences associated with loneliness such as depression, cardiovascular disease, quality of life, cognitive function and mortality have been identified (Ernst & Cacioppo, 2019). Suffice to say that the COVID-19 pandemic is increasing the number of older adults who are socially isolated and lonely because of stay-at-home orders and banned visits for aged nursing home residents in many countries in the world (National Academics of Sciences Engineering and Medicine –NASEM, 2020).

A meta-analysis of 70 studies involving 3.5 million individuals found that loneliness increased mortality by 26% in older adults (Hott-Lunstad et al., 2015). Loneliness is found to be associated with a 45% increased risk of death (Hott-Lunstad et al., 2015). Social isolation and loneliness are serious and affect a significant proportion of the older adult population. For instance, in the United States of America, 26% of community-dwelling older adults are considered to be socially isolated and 43% of older adults report feeling lonely (NASEM, 2020). A similar study in US indicated the prevalence of loneliness among older adults in primary care at 20% (Mullen, et al., 2019). Additional, review of prevalence rates of loneliness, anxiety, and depression among older people living in long-term care settings such as residential aged care facilities, nursing homes and assisted living facilities found the prevalence rates of loneliness between 56% to 95.5% (Elias, 2018).

Findings from a study among 2,251 European community-dwelling older adults showed that emotional and social loneliness were reported by 29.2% and 26.7% of the participants respectively and 13.6% of the participants experienced both emotional and social loneliness simultaneously (Fierloos et al., 2021). Similarly, a prevalence study and predictors of general psychiatric disorders and loneliness during COVID-19 among older adults in United kingdom showed that 35.86% of the respondents reported loneliness (Li & Wang, 2020). Also, a research on predictors of loneliness

and different types of social isolation among rural-living older adults in the United Kingdom revealed a prevalence of loneliness at 13%, isolation from the family at 49% and isolation from the community at 9% respectively among this population (de Koning, et al, 2017).

Statistics of loneliness among the older adults in Asian countries is not far from the rest of the world. For example, a study among 744 older adults recruited from 13 primary care clinics in Wuhan, China showed a prevalence of loneliness among this population at 26.2% (Zhong et al, 2018). Also, in a correlates of social support and loneliness among Chinese industry workers found a prevalence of loneliness at 18.3% (Zhong et al., 2016). In addition, Metz (2021) reports that 28.7% of older adults who participated in a study in Singapore were severely feeling lonely and 34.9% of the participants were moderately feeling lonely.

African older adults are not exempted from the perennial phenomenon of loneliness. A cross sectional study among selected older adults in South Africa indicated that the prevalence of self-reported feelings of loneliness and reduced interest in most things was at 43.8% (Hao et al., 2017). A study on peer-to-peer support model to improve quality of life among highly vulnerable, low-income older adults in Cape-Town, South Africa found that 39.6% of the participants were severely lonely (Geffen et al., 2019). A similar cross-sectional study on prevalence of loneliness and association with depressive and anxiety among retirees in Northcentral Nigeria by Igbokwe et al., (2020) found the prevalence of loneliness at 21.8%. These statistics are much less, compared to existing data on loneliness in East African countries.

For instance, in a qualitative data to examine the social, economic and demographic risk factors of loneliness among 605 older persons in Uganda, the study found that 7 in 10 older adults felt lonely which translates into 70% prevalence of loneliness (Nzabona et al., 2015). There seems to be

limited studies on loneliness and psychosocial support among older adults in East Africa countries especially in Kenya.

Consequently, several factors have been identified to put older adults at risk of social isolation and loneliness. For examples, Cohen-Mansfield et al., (2016) in a review of quantitative results informed by qualitative insights found certain variables to significantly put older adults at risk of loneliness such as female gender, non-married status, poor income, lower educational level, living alone, low quality of social relationships, poor self-reported health, and poor functional status. Further, psychological factors associated with loneliness according to Cohen-Mansfield et al., (2016) include poor mental health, low self-efficacy beliefs, negative life events, and cognitive deficits. Additionally, Dahlberg et al., (2015) in a longitudinal study found widowhood, depression, mobility problems put older adults at risk of loneliness. Besides the above factors identified as risk factors, de Koning et al., (2017) added greater financial difficulty gave lower odds of isolation from one's family, and higher levels of community engagement gave lower odds of isolation from the community to the risk factors.

Further, psychosocial support has been linked to lower loneliness among older adults. Higher support received from four relational sources such as spouse/partner, children, family, and friends were associated with reduced loneliness and improved well-being. Chen and Feeley et al., (2014) from a health and retirement study among 7,367 older adults, the findings from the study showed that support from spouse/partner and friends alleviated loneliness while strain from support systems intensified loneliness. Therefore, various forms of support have significant impact on loneliness and well-being of older adults. Psychosocial support from family members, friends and neighbours is very significant for the well-being of the older adults and to mitigate loneliness among the population (Xie et al., 2016).

1.3 Statement of the Problem

Loneliness is a serious major concern among older adults. Research has found that older adults with feelings of loneliness are at risk for a range of negative physical and mental health outcomes such as high blood pressure, depression, dementia and early mortality (Luke, 2020). More so, loneliness among older adults have become intensified sequel to the COVID-19 pandemic (Polenick et al, 2021). Psychosocial support has been found to be effective in reducing the severity of loneliness among older adults population. However, despite the critical impact of psychosocial support on loneliness among this population, little or no study is known about this phenomenon in Kenya.

A number of studies have been done to investigate the role of psychosocial support from family, friends, neighbours and religious group members. For example, in a study using data from the 2004 Malaysian population and family survey, found that social support from family and friends alleviates loneliness among older people (Teh Lii et al., 2014). Similar study in South Africa among 1,071 participants on the association between the experience of loneliness and the emotional closeness older persons have in their social relationships with their children, friends, and spouses. Findings from the study indicate the significant impact of psychosocial relationships and emotional closeness with older adults on their loneliness. The replicability of the study on impact of psychosocial support to mitigate loneliness among older adults is needed in East African countries especially in Kenya where little or no study has been done among older adults who feel lonely because of their late adulthood vulnerability.

Therefore, this study investigated the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya. Findings from this study will inform

advocate for psychosocial support as prime need for this population from the government, children, spouses, friends and members from religious organizations.

1.4 Purpose of the Study

The purpose of this study was to investigate the correlation between psychosocial support and loneliness among the older adults.

1.5 Objectives of the Study

This study was guided by general and specific objectives;

1.5.1 General Objectives

The general objective of this study was to establish the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya.

1.5.2 Specific Objectives

The specific objectives of the study were to;

1. Determine the prevalence of loneliness among older adults in Mathira West Sub-county, Kenya.
2. Assess the risk factors of loneliness among older adults in Mathira West Sub-county, Kenya.
3. Establish whether there exists a correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya.

1.6 Research Questions

This study sought to answer the following research questions;

1. What are the levels of loneliness among the older adults in Mathira West Sub-county, Kenya?

2. What are the risk factors of loneliness among the older adults in Mathira West Sub-county, Kenya?
3. What is the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya?

1.7 The Hypothesis

Ho There is no significant difference between levels of loneliness and psychosocial support among older adults at Mathira West Sub-County.

Ha There is a significant difference between levels of loneliness and psychosocial support among older adults in Mathira Sub-County.

1.8 Significance of the Study

This study's findings will be used to create awareness about the presence and severity of loneliness among the older adults in Kenya. This awareness will enable counselling psychologists and mental health providers to determine appropriate intervention approaches in helping older adults overcome loneliness.

Adopting a cross sectional research design in this study will shed light into the possible presence and risk factors of loneliness among older adults and future studies may look into providing possible solutions to the phenomenon. The findings from this study will inform the development of clinical guidelines around psychosocial support required by the older adults. Loneliness has been identified as a major cause of early mortality among the older adults (Luke, 2020). Fostering psychosocial support to mitigate loneliness among older adults in this study will decrease the rate of early mortality among the vulnerable population in Kenya.

Most importantly, this study will be of great benefit as a resource for workshops, seminars, and a strategy manual for at-risk lonely older adults in Kenya. There is no local data available on loneliness among older adults in East Africa and more specifically Kenya therefore this study will shed more light on the correlation between psychosocial support and loneliness in the local set up.

1.9 Scope and Delimitations of the Study

This study was carried out among older adults in Mathira West sub-county, Kenya. Mathira sub-county is an electoral constituency in Kenya and it is one of the six constituencies in Nyeri County in Kenya. The constituency was established in 1963 for the purpose of elections. This study involved only the older adults from 55 years and above, which was onset of older adults according to (WHO,2019). The samples of both lonely and non-lonely older adults was selected in Mathira West sub-County, Kenya.

The study investigated the levels of loneliness among the older adults in Mathira West sub-county, Kenya. The factors that put older adults at risk of loneliness at their old age will be explored. The study also examined whether there was a significant correlation between psychosocial support and loneliness among older adults. Similarly, using the yardstick of loneliness, the study evaluated the difference between older adults who experience psychosocial support and older adults who do not experience psychosocial support. However, this study did not make any attempt to provide psychological intervention or psychosocial support for the needy older adults since this is beyond the scope of the study.

1.10 Assumptions of the Study

It was assumed that the disclosure rate of the participants in this study would be high. This is because the research approach used in this study was quantitative in nature. It was assumed that the participants would understand the contents of the questionnaires being used to collect data. It

was also assumed that for those that did not understand English, the questionnaires would be translated into their local language. It was also assumed that participants would agree to take part in the study after seeking informed consent.

1.11 Chapter Summary

The chapter provided an overview of loneliness and psychosocial support among older adults. The significance of the study, statement of the problems and specific objectives, and research questions were discussed. The theoretical and conceptual frameworks with review of existing literature based on the research objectives will be discussed in the next chapter.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter will provide an overview of the theoretical and conceptual frameworks that will guide this study. Additionally, the chapter covers a review of the existing literature with specific attention on the prevalence, risk factors correlation of psychosocial support and its impacts on loneliness among older adults.

2.2 Theoretical Literature Review

This study was guided by a combination of psychological theories and social theories to understand the phenomenon of loneliness among older adults and to interpret data from this study. The choice of psychosocial theories is based on the widely used definition of loneliness as a discrepancy between one's desired and achieved levels of social relations (Perlman et al., 1981). This study argues that loneliness is a combination of psychological factors and social isolation and not merely deficits in inter-personal relationships.

2.2.1 Psychological Theories on Loneliness

Perlman (1982) studied the various theories surrounding loneliness among older adults. The theorist made a distinction between a social needs approach and cognitive approach to conceptualize loneliness based on attachment and cognitive evaluation theories respectively. The theorist postulates four main theoretical perspectives to interpret loneliness as the negative outcome of the individual's cognitive appraisal such as cognitive theory. According to Perlman (1982), loneliness can be viewed from pathological perspective, which perceives loneliness as a pathology stemming from childhood experiences. Secondly, an external social environment perspective, which proposes that feelings of loneliness are brought about by interacting conditions of the external social environment, the individual's social network and their personal disposition (Perlman et al., 1981). The third perspective as postulated by the theorist includes personal growth.

This perspective sees living with loneliness as mandatory for personal growth (Perlman, 1982) and the fourth perspective was cognitive process, which is cognitive appraisal to understand the concept of loneliness among older adults.

According to Perlman (1982) declined efficiency in cognitive processing has been identified directly as a predictor of loneliness in older adults (Russell et al, 1987). Perlman (1982) argued that cognitive impairments may hamper social interactions, instigate social withdrawal, and subsequently lead to loneliness. Also, cognitive deficit between actual and desired quantity and/or quality of social engagement leads to the feeling of loneliness. In congruence with this theory, Peplau et al., (1982) added that the feeling of loneliness is formed by a mismatch in the relation of cognition, experience and expectations of social relationships.

According to Perlman (1982) noted that loneliness can be viewed from pathological perspective, which postulates loneliness to be a pathology stemming from childhood experiences. This perspective suggests that interpersonal, infant and childhood attachments and dilemmas are considered to provide a personality base, which predicts future coping strategies. In addition to this, Donaldson and Watson (1996) regarded loneliness as a state of mind, which is symptomatic of neurosis stemming from an early life, which makes it difficult for lonely elderly people and lonely elderly widows to form relationships. In reference to this pathological perspective, Weiss (1999) argued in agreement with this view that the feelings of emotional loneliness associated with the absence of specific attachment figure is distinctively different from social loneliness associated with reduced social network. According to the theorist, the key feature of the distress that manifests as loneliness is determined by whether relationship is functionally substitutable. Also, a pathological view of loneliness is based on the infant's attachment to the attachment figures such as mother. This theory proposes that the child experiences emotional bonds and how to connect

with others, but the feelings of loneliness emerge when significant others are out of sight. These feelings begins from infancy with an integrating tendency for contact with others, which can form a pathological pattern in later life (Weiss, 1999).

Leiderman (1969) affirmed that loneliness is a separate psychological construct that can be part of multiple psychiatric syndromes like depression, phobias, and psychoneurosis. Leiderman was of the opinion that loneliness is related to childhood attachment issues and results in an overwhelming persistent negative experience (Perlman & Peplau, 1982). Perlman et al explains loneliness in the view of interacting conditions of the external social environment, which is the individual's social network and their personal disposition. This viewpoint refers to the emotional and social nature of loneliness. The theory explains loneliness as individual's subjective evaluation of their emotional and social loneliness in both quality and quantity. Consequently, Erozkan (2011) reacting to this concept, argued that loneliness is caused by a combination of the lack of an attachment figure and the absence of an adequate social network and that the experience of loneliness is dependent on the individual's personality type.

The third perspective as posted by Perlman (1982) was on personal growth. This theory proposes that living with loneliness is mandatory for personal growth. According to the theorist, loneliness is viewed as a necessary aspect of life, a positive opportunity, which is compounded by the experience of love. This concept of loneliness also differentiates between different kinds of loneliness, this viewpoint suggests that loneliness is part of the human condition that is based on anxiety. In existential loneliness, the theorist postulates that man is fully aware of himself as an isolated and solitary individual while in loneliness anxiety man is separated from himself as a feeling and knowing person (Marangoni & Ickes, 1989).

However, psychological theory by Perlman (1982) that explains the concept of loneliness among older adults has been criticized by scholars. For example, Levasseur et al argued that the psychological theory on loneliness is weak and that the theories focus solely on a pathological explanation and fails to take into account the social world of the older adults, their culture, and the effect of ageing. As regards cognitive processing perspective, Bennett and Victor (2012) observed that this concept support that the experience of loneliness is a personal perception and that it depends both on level of need, meeting of needs, and norms. However, Bennett and Victor (2012) criticized that the theory fails to recognize the strong link between social networks and loneliness, and to include elderly adults with cognitive impairments.

Similarly, Donaldson and Watson (1996) criticized the viewpoint because of the conditions described as causing loneliness which is not necessarily negative, and therefore other factors must be involved in creating the feelings of loneliness. In addition, this theory was criticized because social loneliness is an objective position which does not necessarily cause loneliness. Sequel to these shortcomings as pointed out by scholars, the researcher in this present study felt to compensate the weakness of psychological theory by Perlman with social theory of loneliness (Donaldson and Watson, 1996).

2.2.2 Social Theories on Loneliness and their Limitations

In addition to psychological theories, this study was also guided by social theory to understand and explain the concept of loneliness among older adults. Understanding loneliness from social theory perspective can be viewed from objective and subjective outlook. According to Victor et al., (2009) social isolation is the objective physical separation from other people, i.e. living alone while loneliness is subjective distressed feeling of being alone or separated. This seems to suggest that it is possible to feel lonely while among other people, and one can be alone and yet not feel

lonely. Perlman and Peplau (1982) perceive social isolation as the state of having minimal contact with others whereas, loneliness is a subjective state of negative feelings about having a lower level of social contact than desired. Hawthorne (2006) states that loneliness is an emotional reaction to social isolation. However, Cacioppo and Cacioppo (2018) reinstate that the two concept: social isolation and loneliness do not necessarily co-exist, which implies that a person may be socially isolated but not lonely, or socially connected but feel lonely.

According to the theoretical social model of loneliness, social isolation is the key component of explaining experiences of loneliness (Marangoni & Ickes, 1989) . It was postulated that social loneliness refers to the absence of an adequate social environment which results to inadequate social relations and unmet social integration, which intensify experiences of loneliness. Marangoni and Ickes (1989) theorized three sub-themes that describe experiences of social loneliness: social environment, social engagement, and distance. According to the theorists, inability or unwillingness of older adults to maintain a satisfactory social environment, social engagement and distance resulted to experiences of social loneliness.

As regards social environment, three other subthemes emerged which further describes social loneliness: unsatisfactory social life, social interaction and close friends (Marangoni & Ickes, 1989). According to the theorists, there are interrelationships among social isolation, loneliness and wellbeing. Poor health increases levels of loneliness, and loneliness negatively affects health. Older adults are vulnerable to isolation and loneliness when they experience difficulties adjusting to changes in role identity associated with retirement, as well as to the changes in social networks. In reaction to this theory, Wenger et al., (1996) reinstate that loneliness among older men is influenced by widowhood, poor life satisfaction, chronic illness and feelings of emotional detachment from family members, friends, and work life colleagues.

Another explanation given by the theorists on the phenomenon of loneliness among older adults is social engagement and integration concept (Rowe & Kahn, 1997). The theory proposes that engaging in activities that are cognitively stimulating or socially integrating make a difference in reducing feelings of loneliness, thus promoting the overall psychological well-being. According to the theorists, social engagement has two paradigms: relating to and being connected with others through social relationships and to engage in productive activities that create goods, values and connectedness to the community through integration. In a nut shell, social engagement was viewed as being actively involved in meaningful activities that are cognitively stimulating and socially integrating.

Victor (2000) conceptualized loneliness as the opposite of social engagement, which contains both physical and psychological disconnectedness from the community and people. According to Victor and colleagues, lack of social integration lead to loneliness of social isolation which is a distressing feeling that arises when one's social relationships are insufficient and inadequate. Hence, participating in social activities and exercises provides a platform to meet and helps people feel socially connected. Also, as regards social integration, Rowe and Kahn (1997) argued that social integration creates a set of constraints or controls on individual behaviour in such a way that socially cohesive groups in the society give members a sense of certainty and purpose in living. The theory postulates that social integration usually leads to social support, thereby protecting the person against the uncertainty and despair that may lead to disordered functioning.

Another social integration theorist argued that the theory focuses on the ways in which social linkages and social networks control or regulate an individual's behaviour, thoughts, and feelings in a way that promote better health or psychological well-being (Heller, 1993). Also, it was theorized that a person's degree of social integration or isolation is determined by the number of

relationships the person has with other people or the frequency of interaction with those people (Rowe & Kahn, 1997). As regards social integration among older adults, various components of social integration such as social networks, social relationships, social engagement, participation, social support and social ties were theorized. Rowe and Kahn postulate social support as the perceived availability of help, affection, and instrumental aid from significant social partners such as family members, close friends, neighbours and co-workers. Stephens et al., (2011) added that social support is measured in terms of the number of individuals with whom a person interacts and spends time with and those who provides tangible assistance in fulfilling daily needs such as tangible assistance to one's need e.g. information and advice; emotional support, and psychological support, which comes with sharing of similar goals and values.

2.3 Empirical Literature Review

The section on empirical literature review presents the empirical literatures related to the study variables, including levels of loneliness, risk factors, and correlation between loneliness and psychosocial support among the older people.

2.3.1 The Levels of Loneliness among the Older Adults

Empirical literature review on levels of loneliness among older adults varies across studies. For example, findings from a random-effects meta-analysis studies reporting data on the levels of loneliness among older adults from a total of 13 articles showed a significant variation between studies in estimates of prevalence. The meta-analysis indicated that the levels of moderate loneliness ranged from 31-100%, and the levels of severe loneliness ranged from 9 to 81%. However, the study revealed the estimated mean levels of moderate loneliness among older adults at 61% whereas the estimated mean levels of severe loneliness among this population was at 35% (Gardiner et al., 2020). Another 2019 study in US showed a level of loneliness among older adults

at 20% (Mullen et al., 2019) and a review of prevalence study among older adults in residential, nursing homes and assisted living facilities showed a prevalence between 56 to 95% (Elias, 2018). Similar prevalence estimates among older adults aged 60 years and older across 25 European countries was varied as well. For instance, the prevalence of loneliness among this population was found to found to be high in Ukraine at 34%, Russia at 24.4%, Hungary at 21.1% and Poland at 20.1% (Yang & Victor, 2011). Another data from Norwegian sample of 14,743 older adults aged 60 years and older estimated the prevalence of loneliness at 30.2% (Nicolaisen & Thorsen, 2019). Prevalence studies in Asia have similar variance estimates of loneliness. In China for instance, a national survey conducted in 2018 among 20,255 older adults found that 29.6% of the participants have subjected loneliness (Luo & Waite, 2018). Also, among Israeli residents in Jerusalem aged 70 years and older, the researchers estimated that at the age of 70, the prevalence of loneliness was 27.9%, at the age of 78, the prevalence was found to be at 23.9% and aged 85, the prevalence of loneliness was estimated to be at 24% (Stessman et al., 2017).

Prevalence of loneliness among African older adults also showed no significant difference. An example of such study was that of an empirical research in South Africa among older adults where 43.8% were found to be lonely among the participants (Hao et al., 2017). A similar study in Cape Town, South Africa found the prevalence of loneliness to be at 39.6% (Geffen et al., 2019). Study in Nigeria among older adults estimated the prevalence of loneliness at 21.8% (Igbokwe et al, 2020). Whereas, levels of loneliness in Uganda was estimated to be at 70% (Nzabona et al.,2015). There is no locally available data in Kenya.

2.3.2 The Risk Factors of Loneliness among the Older Adults

Several factors have been identified as risk factors of loneliness among older adults. For example, a cross-sectional study to explore possible risk factors of emotional and social loneliness among

477 community-dwelling older adults. Findings from the study showed that quality of contact with others, use of phone contact and social isolation was significantly found to put the older adults at risk of loneliness in the study (Teater et al., 2021). Another empirical study to determine the key determinant factors of loneliness among sample of 3,799 older Canadians. The results from the study found social network size and composition, satisfaction with network contact, living in economically and socially challenging conditions were at risk of experiencing loneliness. Other factors from the same study found that older adults who had experienced a recent downturn in their financial situation and those who lacked the help needed to cope with a recent personal challenge put the older adults at risk of loneliness (de Jong Gierveld et al., 2015).

Another study by Taylor (2020) found isolation from adult-children, other family members, friends, living alone, being unmarried, and not participating in social groups or religious activities as significant risk factors of loneliness among the older adults. Emerson et al (2018) in a logistic regression models to determine whether pain was a risk factor for loneliness. The result from the study indicated that the odds of loneliness was higher for those with pain compared with those who had no pain. In addition, Taylor (2019) in a study found younger age, greater years of education, lower total household income, worse self-rated health, greater depressive symptoms, less neighbourhood social cohesion, and greater social isolation to be significantly predictive of loneliness among older adults.

A study done by Yang and Victor (2008) found risk factors associated with loneliness among older adults to include those aged more than 65 years, female, living in rural areas, widowed or divorced people and those with poor self-related health.

Findings from empirical studies indicated that psychosocial support from networks of social circle of older adults correlates with loneliness among them. For instance, findings from a study by Chen

and Feeley (2014) revealed that higher psychosocial support from all social networks correlates with reduced loneliness. This seems to imply that the higher support older adults receive, the lower the feelings of loneliness. Additionally, a multivariate linear regression to assess the association of psychosocial support, loneliness and negative perception of aging showed that social isolation, poor relationship quality with spouse, children, other family members or friends and loneliness were significantly correlated with negative ageing perceptions (Santini et al., 2019). Findings from this study suggest that integration into social support networks and improving relationship quality will significantly reduce the intensity of loneliness among the older adults. Further study on relationship between psychosocial support and loneliness revealed that low level of psychosocial support correlates with severe levels of loneliness among older adults (Siconolfi, et al., 2013).

2.3.3 Correlation between Psychosocial Support and Loneliness among Older Adults

An empirical investigation on the impact of perceived stress, social support on mental health conditions such as fatigue, loneliness, and depression of the 163 older adults. Structural equation modelling was performed to assess the impact. The findings indicate that perceived stress has an impact on higher levels of depression, whereas, reduced psychosocial support have impact on lower levels of loneliness on older adults (Kwag et al., 2011). This implies that social support and physical activity mediated the relationships between stress and mental health. Also, a similar study on impact of psychosocial support on loneliness among 110 older Portuguese gay men using UCLA Loneliness Scale. Findings from the study showed that there was a significant impact of low levels of family support, friends support and connectedness to the community on high levels of loneliness in the regression analyses.

A meta-analysis on effectiveness of psychosocial intervention for the promotion of mental health among older adults. The studies were divided into physical exercise, skill training, reminiscence,

social activities, psychosocial group support and multicomponent interventions. Results from the analysis indicated that the impact of psychosocial interventions on positive effect of life, reduced loneliness and positive mental health is significant. Also, psychosocial activities significantly improved positive mental health, life satisfaction and quality of life and reduced depressive symptoms (Forsman et al., 2011). Another study by Kang et al (2018) on the impact of perceived social support, loneliness, and physical activity on quality of life in South Korean older adults showed that perceived social support had a significantly positive impact on physical activity and decreasing loneliness. More so, perceived social support mediated between relationship between loneliness and quality of life.

2.4 Research Gap

Having reviewed related literatures on the present study objective by objective, it became clear that there is scarcity of data regarding the concept of psychosocial support and loneliness among older adults in East African countries especially Kenya. Thus, the present study seeks to address this gap.

2.5 Conceptual Framework

A conceptual framework identifies the relationship of concepts, assumptions, expectations, beliefs or theories that support a research. The conceptual framework for this study is based on the relationship between psychosocial support and loneliness and risk factors (intervening variables) identified in the study.

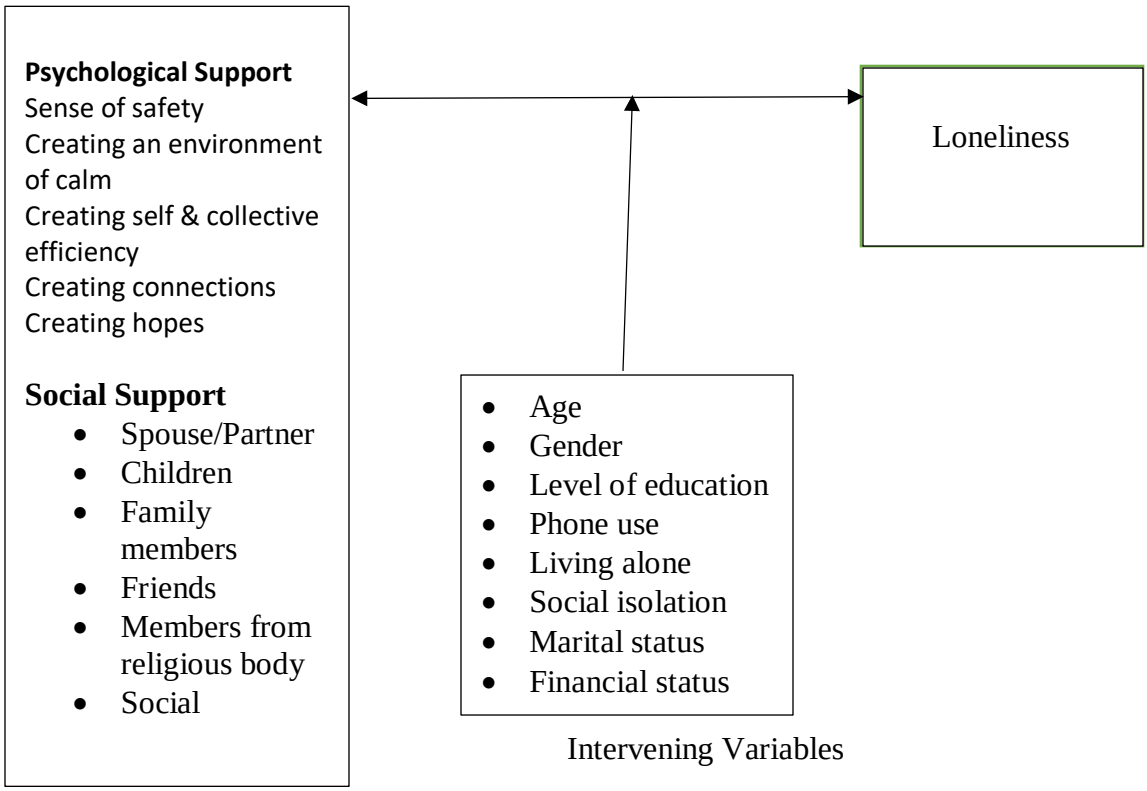


Figure 1 Conceptual Framework

This study consists of correlational variables. These are variables that are used to test strength of association between two concepts. The variables are only observed as there is no intervention during this research. Since there is limited control, other intervening variables may play a role in this relationship. With regards to this study, the correlational variables are psychosocial support such as support from spouse/partner, children, family members, friends and members from religious body and loneliness is another variable. There may be a positive or negative correlation based on the study results.

The final variable to be considered in this study is the intervening variable. An intervening variable explains the relationship established between the independent and the dependent variable. It mediates the relationship between the two variables. It refers to abstract processes that are not directly observable but links the variables. It is hypothetical mediating variables. Intervening variables cannot be observed in an experiment, that's why they are hypothetical.

2.6 Chapter Summary

This chapter presented the introduction to the study, it discussed the theoretical and conceptual frameworks that will inform and guide this study. General and empirical literature were reviewed and finally a summary of the chapter was presented. The next chapter will discuss the research methods and research designs for this study.

CHAPTER 3: RESEARCH METHODS

3.1 Introduction

This chapter presents description of research design which was used in the study. It describes methods of data collection, target population, sample size, sampling procedure, and selection of data collection instruments. Methods of data collection including pretesting, methods of data analysis and ethical considerations that were employed are also discussed in this chapter

3.2 Research Design

A research design is a plan of action that guides the researcher the whole process of data collection and analysis in accordance with research objectives and research questions (Creswell, 2014). It explains the procedure used by the researcher in the selection of respondents, data collection, data analysis and how to report the findings (British Educational Research Association -BERA, 2013). In social science research, obtaining evidence relevant to research problem entails identifying the type of evidence needed to test a theory, to evaluate a program, or to accurately describe a phenomenon (Labaree, 2016). Research design explains how research will be carried out (Obwatho, 2014). Further, Kothari (2013) argued that research design is a well-thought plan for collecting and analysing data to provide information sought.

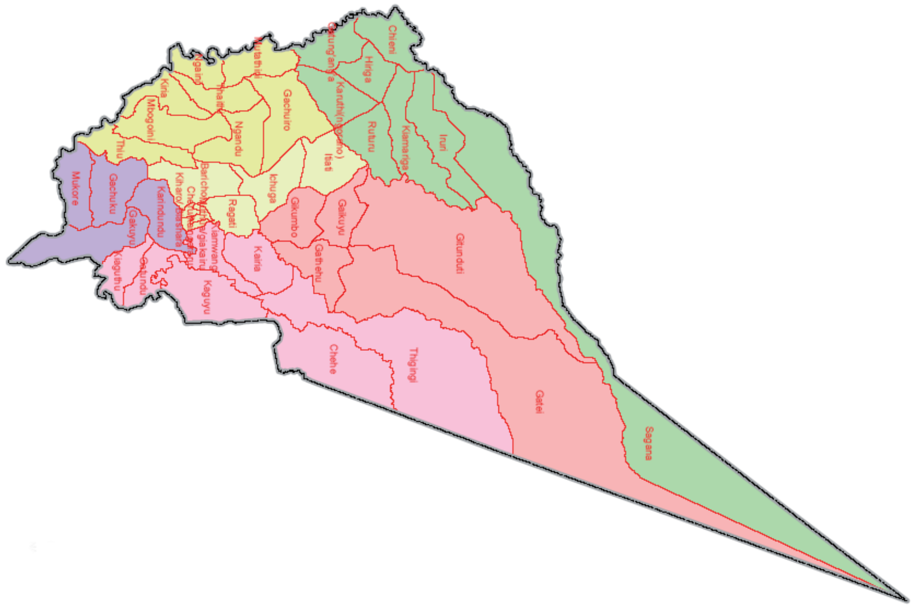
Therefore, this study adopted a quantitative correlational research design to investigate the relationship between psychosocial factors and loneliness among the older adults in Mathira West Sub-county, Kenya. According to Paul and Price (2010), correlation research is a type of non-experimental research in which the researcher measures two variables and assesses the statistical relationship between them with little or no effort to control extraneous variables. In addition, Paul and Price (2010) argue that correlation of variables can either be revealed in terms of negative correlation, positive correlation or no correlation at all. This research design is appropriate to this

study because the researcher's interest is to examine the correlation between psychosocial support and loneliness in the target population in Kenya.

3.3 Location of the Study

This study was conducted among older adults in Mathira West Sub-county, Kenya. Mathira sub-county is an electoral constituency in Kenya. The county is divided into eight administrative sub counties that includes; Kieni East, Kieni West, Mathira East, Mathira West, Nyeri Central, Mukurweini, Tetu and Nyeri South. Kieni Sub County has the highest population, followed by Mathira Sub County. Mathira sub-county has the total population of 189,720. (Male, 91, 58; Female, 98,139). Nyeri County is home to 845,863 people (male - 49% and female - 51%), according to the projections by KNBS, 2019. Majority of the people living in Nyeri County are Kikuyus most of whom are predominantly farmers growing tea and coffee as cash crops alongside food crops such as maize, beans, assorted vegetables and sweet potatoes. Other communities living in the county include Luo, Meru, Kamba, Embu, Borana, Somali and virtually all Kenyan communities who are mostly engaged in own businesses or employed by the government. The County lies between Mount Kenya and the Aberdare ranges with Agriculture as the main economic activity. The County is also renowned for horticultural farming. Other agricultural activities which act as a source of income include dairy farming and fish keeping. There are also a number of light industries, tea and coffee factories providing a market and employment to the locals. The County headquarter is located in Nyeri Town which is easily accessible from all the eight sub counties. This study involved only the older adults from 55 years and above, which was onset of older adults according to (WHO, 2019). The location of the study in Kenya is shown on figure 3.1.

Figure 2 Map of Mathira West Sub-county, Nyeri, Kenya



Source: kenyacradle.com, 2023

3.4 Target Population

Target population is the total group of individuals from which the sample is drawn (Mohsin, 2016). In addition, the target population defined those units for which the findings of the research were generalized to. For this study, the targeted population were older adults aged 55 and older who live Nyeri County while the sample was drawn from Mathira West sub-county in Kenya. This population was selected because of their vulnerability to loneliness as revealed in many reports (WHO, 2019).

3.5 Sampling Technique and Sample Size

3.5.1 Sampling Technique

Sampling technique is the method that the researcher uses to pick the sample population that participates in the study (Oladipo et al., 2015). Kothari (2013) argued that the researcher must select a technique and a given sample size that has a smaller sample error. This study therefore used non-random sampling technique to select the subset of the population that comprises the

elements that are representative of the characteristics found in the study population. Oladipo et al., (2015) claimed that non-random sampling technique is also referred to non-probability or deliberate sampling. In this study, the researcher deliberately selects the items to be studied. It should be noted that the units of the population at Mathira West sub-county in Kenya do not have an equal chance of being selected because of the sampling technique adopted in this study. Besides, this study will adopt judgmental sampling also known as purposive sampling, a type of non-random sampling technique. In this kind of sampling, the researcher targeted only people that meet certain predetermined criteria such as older adults aged 55 and older. The technique allowed the researcher to use only the sample that processes the required information and that lives within Mathira West sub-county in Kenya.

3.5.2 Sample Size

Sample size is an important feature of any scientific inquiry in which the goal was to make descriptive or inferences about a population from a sample (Malone et al., 2016). A sample in a research is the smaller group of individuals derived from a target population using a sample frame (Asiamah, Mensah, & Oteng-Abayie, 2017). Therefore, it is an essential part of research design to calculate sample size with provision for adequate levels of significance and margin error. The formula by Yamane (1967) was used to calculate the sample size. To calculate the sample size, the following was considered; the confidence level at 95% and the margin error of 5%. The target population of 1169 was also considered in the calculation.

$$n = \frac{N}{1 + N(e)^2}$$

Where
n = the sample size
N = Target population =1169
e = Margin of error= (5%) =0.05

n= 1169

$$\frac{}{1 + 1169\ (0.05)^2}$$

$$n = \frac{1169}{3.9225}$$

n= 298 older adults. An attrition rate of 10% was added to this sample size, which is 30. This attrition of 30 respondents catered for despondent participants. The total of 328 respondents were be sampled for this study.

3.6 Research Instruments

The researcher used both researcher-generated socio-demographic questionnaire and standardized instruments to collect data, which was analysed to answer the research specific objectives.

3.6.1 Researcher-generated Socio-demographic Questionnaire

The social demographic questionnaire was generated by the researcher. It included the following variables; age, gender, marital status, level of education, religious affiliation, economic status and family setup. Socio demographic questionnaire was administered in person through the help of trained research assistants.

3.6.2 Standardized Instruments

This study made use of the Multidimensional Scale of Perceived Social Support (MSPSS) and UCLA Loneliness Scale to assess psychosocial factors and loneliness respectively.

3.6.2.1 The Multidimensional Scale of Perceived Social Support (MSPSS)

The MSPSS is a short instrument designed to assess an individual's subjective feelings and perception of support from family, friends and significant individuals in older adults. This instrument is a-12 question long questionnaire and it has been widely used and well validated. The MSPSS has been shown to have good internal and test-retest reliability, good validity, and fairly stable factorial structure. The amount of social support is rated on a seven-point Likert scale with

responses ranging from very strongly disagree (=1) to very strongly agree (=7). The cumulative scores range from 12 to 84. The mean scores are gotten by dividing by 12.A score of 1 to 2.9 is considered low support, 3 to 5 moderate support and 5.1 to 7 high support. The scores are interpreted as, the higher the score, the greater the amount of available social support (Dambi, et al., 2018). The original version of the MSPSS yielded a three-factor structure, high internal consistency ($\alpha = 0.88$), stability (yielded $\alpha = 0.85$) and moderate construct validity as the SS scores were negatively correlated to anxiety ($r = -0.18; p < 0.01$) and depression scores ($r = -24; p < 0.01$) and loneliness (r= - 28; p =01) (Zimet et al., 1988).

3.6.2.2 The UCLA Loneliness Scale

The UCLA Loneliness Scale is a-20-item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. Participants will be asked to rate each item as either O ("I often feel this way"), S ("I sometimes feel this way"), R ("I rarely feel this way"), N ("I never feel this way"). The measure has been revised two times since its first publication; once to create reverse scored items, and once to simplify the wording.

Russell (1996)'s validity and reliability test indicated that the measure was highly reliable, both in terms of internal consistency (coefficient a ranging from .89 to .94) and test-retest reliability over a 1-year period (r = .73). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships, and by correlations between loneliness and measures of health and well-being. Confirmatory factor analyses indicated that a model incorporating a global bipolar loneliness factor along with two method factors reflecting direction of item wording provided a very good fit to the data across samples. Implications of these results for future measurement research on loneliness are discussed. The total

score ranges from 20 to 80. Higher scores indicate loneliness.20 to 34 denotes low degree of loneliness, 35 to 49 a moderate degree of loneliness.50 to 64 a moderately high degree of loneliness and 65 to 80 a high degree of loneliness.

3.7 Pre-testing of Tools

Pretesting is the stage in survey research when the research questions and questionnaires are tested on members of target population to evaluate the reliability and validity of the research instrument prior to their final distribution (Mohsin, 2016). Even though the standardized instruments have been validated and psychometric properties of the instruments have been well, the researcher conducted a pre-test to check whether older adults aged 55 and older in Mathira Sub County would understand and respond to them adequately. The researcher generated questionnaire was pretested and revisions were made to ensure that wording of the questions was clear. The pre-test of tools was conducted in Nyeri Central sub-county. As recommended by Crewell (2014) a pre-test of questionnaires was done with a small sample of 10% of the total sample size.

3.8 Data Collection Procedure

The researcher received approval from the Institute of Youth studies, Tangaza University College after the defence, and thereafter sought research permit to collect data from the National Commission for Science, Technology and Innovation (NACOSTI). These authorization letters were used to seek entry into the study location to identify the potential research participants. Two research assistants were recruited, inducted and trained for one week. The assistants were taken through the administration of tools. The research assistants worked alongside with the principal researcher during the entire process of research.

This was performed by conducting a random questionnaire in shopping/trading centres within Mathira West Sub-County.

3.9 Data Analysis

Data analysis is the process of bringing order and meaning to raw data. After data collection, coding was done followed by analysis of data. Data from the field was coded numerically and analysed accordingly.

Data cleaning and validation using filter questions was performed in order to achieve a clean dataset using Statistical Package for Social Sciences version 25. To generate the output, the researcher used SPSS version 21 from International Business Machine (IBM) in data processing and analysis. In analysing data. Both descriptive and inferential statistics were used to analyse the data objective by objective. The analysed data will be presented in frequency and percentage on the distribution tables and pie charts. Descriptive statistics such as percentages and frequencies were used to show the levels of loneliness while regression analysis were employed to inform the risk factors for loneliness. Regression analysis were used to demonstrate the association between psychosocial support and loneliness among the participants.

Table 1 Data Management Matrix

Objectives	Tools	Statistic Models
1. Evaluate the levels of loneliness among the older adults in Mathira West Sub-county, Kenya.	SDQ, UCLA Loneliness Scale	Descriptive analysis in percentages.
2. Assess the risk factors of loneliness among the older adults in Mathira West Sub-county, Kenya.	SDQ, UCLA Loneliness Scale	Analysis, multicolinearity coefficient, PLUM logistic regression.
3. Examine the correlates of psychosocial support and loneliness among the older adults in Mathira West Sub-county, Kenya.	SDQ, UCLA Loneliness Scale, The MSPSS	Multicolinearity coefficient test
The Null Hypothesis: There is no significant difference between lonely older adults with no psychosocial support and older adults who experience psychosocial support.	SDQ, UCLA Loneliness Scale, The MSPSS	One-way ANOVA

3.10 Ethical Considerations

There are ethical issues surrounding social research, just as there are with any form of human activity. The purpose of ethical considerations in research is to ensure the research process does not cause physical, emotional, physiological and mental harm to participants. The most important ethical principles a researcher has to adhere to include informed consent, voluntary participation, confidentiality and privacy, protection from harm and maintenance of the well-being of participants. According to British Psychological Society Code of Human Research Ethics (2014) document, a researcher should respect the rights and dignity of participants in their research.

During this study, various ethical concerns were put in place in order to carry out the research within the right principles. Research will begin with a clearance of the topic by Institute of Youth Studies, Tangaza University College before conducting the study and relevant approval was sought. First, the researcher collected an introductory letter from IYS, Tangaza University College explaining the purpose of the study. Thereafter, permit from the National Commission for Science, Technology and Innovation (NACOSTI) was obtained to enable collection of data from the older adults living in Mathira West Sub-county, Kenya.

The County Director of Education, Mathira West Sub-county, was informed of the study so as to grant authority to conduct the study in Mathira West Sub-county, Kenya. After permission had been granted, next step, participants were taken through matters pertaining to their right. These include:

Foremost, informed consent to take part in research was sought, where the researcher explained to participants what the study is all about and what it entails. The researcher took them through their rights including freedom to participate or withdraw without coercion. Participants were given time to consider the information, process and ask questions. The consent was given

through a written form with details. On ethical considerations, procedure of the study, confidentiality, benefits, personal risks and freedom to participate or withdraw. Before embarking on research, the researcher ensured that all formed are signed correctly and information provided is valid. All the participants signed the informed consent form to participate in the study. The researcher clearly briefed the participants about the research before engaging them and emphasize that participation is voluntary. Further, the researcher produced an introduction letter clearly stating that this study was particularly for academic purposes.

Considering the sensitivity of the information that the respondents will be providing, the aspect of confidentiality and anonymity was vital. Therefore, the researcher appreciated the sensitivity of the information the respondents gave about their personal life, thus, there privacy was observed throughout the research. The identities of participants remained anonymous throughout the research work by making sure that no real names were used. Numbers or coded names were used to conceal the respondents' identities unless if the researcher needed to disclose information about an individual participant for the purposes of further health related help. To do this, the researcher assured the respondents verbally and also in writing about maintaining confidentiality during and after the research.

The researcher made sure that the participants joined the study voluntarily. The researcher assured respondents that should they choose to exit before the end of the study, there are no negative consequences that would occur to them. Further, participants would be free to discontinue at whichever stage. The researcher also discussed with the participants the purpose of the research as well as the procedures to enable them make an informed decision.

The researcher informed the respondents that there was be no known risks associated with their participation in this research. However, the research assured the participants that in case of

any discomfort, the researcher and the assistants who are trained therapist would give the necessary counselling where any distress would be encountered especially in cases of trauma which might elicit feelings of sadness. However, no such discomforts were reported during data collection.

The participants were informed the way research would benefit them. The researcher explained to them that the study would not benefit the respondents directly but would improve their care givers understanding on how to handle, and the government may be well informed about the need to address the concerns of the elderly. Therefore, there was no monetary compensation that was given to them.

Dissemination is the transfer of research-based knowledge to the ones that can best make use of it. The aim of disseminating research is for awareness, understanding and action. This was done through publication in a peer-reviewed journal, and plans are underway to make presentation in conferences. The findings will also be shared with Nyeri County Gender and Social Welfare department.

3.11 Chapter Summary

This chapter has discussed the introduction to research design, population, sample size and sampling procedure, data collection procedure, pre-testing and data analysis. The next chapter will provide the result of this study in form of tables and pie charts.

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data, analysis and interpretation of the findings on the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-County, Kenya. The study used quantitative approach in research and employed a correlational design to determine the relationship between the study variables. Data was collected using a researcher-generated socio-demographic questionnaire and standardized instruments including the Multidimensional Scale of Perceived Social Support (MSPSS) and UCLA Loneliness Scale to asses both psychosocial factors and loneliness as variables in the study. The demographic information of the respondents is presented in the first section, while the second section presents the research findings according to the research objectives.

Table 2 Questionnaires Return Rate

Questionnaires administered	Questionnaires returned	Return rate
330	299	90.6%

Table 2 presents the questionnaire return rate. As shown on the Table, 330 questionnaires were deployed to the field to be administered to the older adults in Mathira West Sub-County, Kenya. At the end of the data collection exercise, out of the 330 questionnaires, 299 questionnaires were returned for data analysis. The returned 299 questionnaires constituted 90.6% return rate. According to Cleave (2020), a 50% response rate is adequate for analysis and reporting of data, he postulated that 60 percent rate is good and a response rate of 70 percent and above is excellent. Therefore, almost 91% response rate in this study is excellent for data analysis and reporting of data.

4.2 Socio-Demographic Information

The socio-demographic information obtained from the respondents included their age,

Gender, level of education, religion affiliation, marital status, employment status, financial status, living condition and frequency of using mobile phone to communicate. The frequency of all the socio-demographic characteristics is presented in subsequent Tables.

Table 3 Distribution of Key Socio-demographic Characteristics

Variables	Frequency	Percent
Respondent's Age		
55-60 years	85	28.4
61-65 years	55	18.4
66-70 years	48	16.1
71-75 years	56	18.7
76-80 years	55	18.4
Total	299	100.0
Respondent's Gender		
Male	174	58.2
Female	125	41.8
Total	299	100.0
Respondent's Levels of Education		
No formal education	87	29.1
Primary	44	14.7
High school	30	10.0
Diploma/certificate	50	16.7
Bachelor degree	73	24.4
Master's degree	13	4.3
PhD	2	0.7
Total	299	100.0

Table 3 presents the distribution of key sociodemographic characteristics among the respondents in this study. Age distribution for example, the higher frequency was among the respondents aged 55-60 years (85, 28.4%) compared to aged 61-65 years (55, 18.4%), 66-70 years (48, 16.1%), 71-75 years (56. 18.7%) and 76-80 years (55, 18.4%). This suggests that the higher percentage of older adults in this study were adults in 55-60 years' age bracket.

Further, frequency of gender distribution in this study indicated that the frequency of male respondents was slightly higher (174, 58.2%) as opposed to female counterpart (125, 41.8%). It will therefore be in order to infer that the majority in this study were male older adults as clearly shown on the graph below;

Additionally, the Table 4.2 shows the distribution of educational status of the respondents. Majority of the respondents had no formal education (87, 29.1%). Whereas, the frequency of the respondents with bachelor degree was similarly higher (73, 24.4%) compared to primary level of education (44, 14.7%), High school certificate (30, 10%), Diploma/certificate (50, 16.7%), Master's degree (13, 4.3%) and PhD holder (2, 0.7%). This implies that many of the respondents in this study had no formal education, however, the frequency of the respondents with no formal education was slightly different from the respondents with bachelor degree.

Table 4 Distribution of other Sociodemographic Characteristics

Variables	Frequency	Percent
Respondent's Religion Affiliation		
Catholics	75	25.1
Pentecostal	105	35.1
Protestant/Evangelical	99	32.4
Muslim	22	7.4
Total	299	100.0
Respondent's Marital Status		
Married	68	22.7
Single parents	114	38.1
Separated/Divorcee	44	14.7
Widow/widower	73	24.4
Total	299	100.0
Respondent's Employment Status		
Retired	103	34.4

Still in work force	90	30.1
Self-employed	29	9.7
Trading/Business	77	25.8
Total	299	100.0
Respondent's Financial Status		
Poor	74	24.7
Average	202	67.6
Affluence	23	7.7
Total	299	100
Respondent's Living Condition		
I live alone	174	58.2
I live with spouse	59	19.7
I live with family	66	22.1
Total	299	100
Phone Used to Communicate		
Frequently	137	45.8
Very rarely	162	54.2
Total	299	100

Table 4 represents the distribution of other sociodemographic characteristics among the respondents in this study. As regards the religion affiliation of the respondents, the frequency of Pentecostal was higher (105, 35.1%) compared to members of the Catholics (75, 25.1%),

Protestant/Evangelical (99, 32.4%), and Muslim (22, 7.4%). This data shows that the majority of the respondents in this study were members of the Pentecostal Churches.

Similarly, concerning the respondent's marital status, the higher percentage of the respondents were single parents (114, 38.1%) as opposed to those who are married (68, 22.7%), Separated or Divorced (44, 14.7%) and those who were either widow or widower (73, 24.4%). However, this study found that the majority of the respondents were single parents. Also, as regards the employment status of the respondents, the frequency of retired were significantly higher (103, 34.4%) as against those who are still in workforce (90, 30.1%), self-employed (29, 9.7%) and trading/business (77, 25.8%). The implication of this finding indicated that many of the respondents in this study were retirees.

Meanwhile, the financial status of the respondents shows that the majority of the respondents disclosed self to be average financially (202, 67.6%) compared to those who considered themselves to be poor (74, 24.7%) and self-acclaimed affluence (23, 7.7%). In this study, therefore, higher frequency of self-acclaimed financial status of the respondents was average financial status. Additionally, the living condition of the respondents indicated that the frequency of those who live alone was higher significantly (174, 58.2%) as opposed to those who live with family (66, 22.1%) and those who live with spouse (59, 19.7%). This implies that significant number of the respondents in this study live alone. Likewise, in reference with the use of mobile phone to communicate, the frequency of the respondents who very rarely use mobile phone to communicate to communicate was higher (162, 54.2%), as against those who frequently use mobile phone to communicate (137, 45.8%). Therefore, frequency of use of mobile phone to communicate was a variable to be considered in this study as majority of the respondents very rarely use the mobile phone to communicate.

4.3 The Levels of Loneliness among the Older Adults

The first objective in this study sought to evaluate the levels of loneliness among the older adults who responded to the questionnaire on loneliness. The UCLA Loneliness Scale was used to collect data on loneliness among the respondents. UCLA loneliness scale is designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. The respondents were asked to rate each item as either O ("I often feel this way"), S ("I sometimes feel this way"), R ("I rarely feel this way"), N ("I never feel this way"). Ten of the items were positively worded items, hence the items were reverse scored before the analyses for uniformity of direction. Once the items were reverse scored, all items were summed to tabulate loneliness scores for each respondent, with higher scores indicating greater loneliness. The range of potential scores was 20 to 80. The cut-offs for loneliness severity were total scores of less than 28 was classified to be no/low loneliness, total scores between 29 to 43 was classified to be moderate loneliness, and total score of greater than or equal to 44 was classified to be clinical or severe loneliness (Lee et al., 2021).

Table 5 Objective 1: The Levels of Loneliness among the Older Adults in the Study

Scale	Variables	Frequency	Percent
0-28	No/Low Loneliness	174	58.2%
29-43	Moderate Loneliness	82	27.4%
44-80	Clinical Loneliness/ high loneliness	43	14.4%

Table 5 indicates the frequency of loneliness scale showing its levels among the older adults in this study. As shown on the Table, significant number of the respondents presented with no or low form of loneliness (174, 58.2%). However, the frequency of moderate loneliness in this study was higher (82, 27.4%) as opposed to the respondents presenting with clinical loneliness (43, 14.4%). Therefore, the levels of clinical or high loneliness in this study was at 14.4%. Clinical loneliness implies that the severity of the loneliness among this population needs psychological attention.

Table 5 provides the distribution of socio-demographic characteristics and the severity of loneliness among the study participants.

Table 6 Distribution of Severity of Loneliness and Socio-demographic Characteristics

		Severity of loneliness			Chi-square Test		
Variables	Total	No/low	Moderate	Clinical	Value	df	Sig.
Respondent's age							
55-60 years	85 (28.4)	59 (19.7)	0 (0.0)	26 (8.7)	154.905	4	.000
61-65 years	55 (18.4)	0 (0.0)	28 (12.7)	17 (5.7)			
66-70 years	48 (16.1)	37 (12.4)	11 (3.7)	0 (0.0)			
71-75 years	56 (18.7)	33(11.0)	23 (7.7)	0 (0.0)			
76-80 years	55 (18.4)	45 (15.1)	10 (3.3)	0 (0.0)			
Respondent's gender							
Male	174(58.2)	80 (26.8)	59(19.7)	35(11.7)	26.568	1	.000
Female	125(41.8)	94(31.4)	23 (7.7)	8 (2.7)			
Respondent's level of education							
No formal education	87 (29.1)	60 (20.1)	22 (7.4)	5 (1.7)	72.171	6	.000
Primary	44 (14.7)	16 (5.4)	28 (9.4)	0 (0.0)			
High school	30 (10.0)	15 (5.0)	10 (3.3)	5 (1.7)			
Diploma/certificate	50 (16.7)	35 (11.7)	0 (0.0)	15 (5.0)			
Bachelor degree	73 (24.4)	36 (12.0)	22 (7.4)	15 (5.0)			
Master's degree	13 (4.3)	11 (3.7)	0 (0.0)	2 (0.7)			
PhD	2 (0.7)	1 (0.3)	0 (0.0)	1 (0.3)			
Respondent's Religious affiliation							
Catholics	75 (25.1)	59 (19.7)	16 (5.4)	0 (0.0)	60.942	3	.000
Pentecostal	105(35.1)	36 (12.0)	43 (14.4)	26 (8.7)			
Protestant/Evangelical	97 (32.4)	68 (22.7)	12 (4.0)	17 (5.7)			
Muslim	22 (7.4)	11 (3.7)	11 (3.7)	0 (0.0)			
Respondent's marital status							
Married	68 (22.7)	67 (22.4)	1 (0.3)	0 (0.0)	66.706	3	.000
Single parents	114(38.1)	57 (19.1)	38 (12.7)	19 (6.4)			

Separated/Divorced	44 (14.7)	15 (5.0)	22 (7.4)	7 (2.3)			
Widow/Widower	73 (24.4)	35 (11.7)	21 (7.0)	17 (5.7)			
			Employment status				
Retired	103(34.4)	57 (19.1)	42 (14.0)	4 (1.3)	98.908	3	.000
Still in work force	90 (30.1)	35 (11.7)	16 (5.4)	39 (13.0)			
Self-employed	29 (9.7)	23 (7.7)	6 (2.0)	0 (0.0)			
Trading/business	77 (25.8)	59 (19.7)	18 (6.0)	0 (0.0)			
			Respondent's financial status				
Poor	74 (24.7)	48 (16.1)	11 (3.7)	15 (5.0)	29.363	2	.000
Average	202(67.6)	103(34.4)	71 (23.7)	28 (9.4)			
Affluence	23 (7.7)	23 (7.7)	0 (0.0)	0 (0.0)			
			Respondent's living condition				
I live alone	174(58.2)	70 (23.4)	61 (20.4)	43 (14.4)	79.732	2	.000
I live with spouse	59 (19.7)	59 (19.7)	0 (0.0)	0 (0.0)			
I live with family	66 (22.1)	45 (15.1)	21 (7.0)	0 (0.0)			
			Respondent's use of phone				
Frequently	137(45.8)	66 (22.1)	45 (15.1)	26 (8.7)	10.787	1	.005
Very rarely	162(54.2)	108(36.1)	37 (12.4)	17 (5.7)			

Table 6 shows the distribution of severity of loneliness across the sociodemographic characteristics in this study. Age distribution for instance, the frequency of clinical loneliness was higher among respondents aged 55-60 years at 8.7% compared to aged 61-65 years at 5.7%. With reference to moderate loneliness, the frequency was higher among the respondents aged 61-65 years at 12.7% as opposed to other age categories. The statistical test to examine the level of relationship in distribution implies that there was a significant difference in the distribution of age categories and severity of loneliness (p=0.000). This is interpreted to mean that there was a significant relationship between the respondent's age and degree of loneliness.

Furthermore, the Table similarly implies in terms of gender distribution, the frequency of clinical loneliness was higher among male respondents at 11.7% compared to female counterpart at 2.7%. Likewise, the frequency of moderate loneliness was also higher among male respondents (19.7%) compared to female respondents (7.7%). However, in terms of no/low loneliness, the frequency was higher among female respondents at 31.4% as against male older adults at 26.8%. Chi-square test shows that there was a significant difference in the distribution of gender and the respondent's scores on severity of loneliness. This implies that female respondents were less lonely, and that male respondents feel lonelier clinically compared to female counterparts.

In terms of levels of education, data showed that higher frequency of clinical loneliness was noted to be among the respondents whose levels of education was bachelor's degree and Master's degree at 5.0% respectively compared to other categories. Also, frequency of moderate loneliness was higher among primary school leavers at 9.4%. Meanwhile, the chi-square statistical test showed that the difference in the distribution of respondent's level of education and severity of loneliness was significant. It implies that level of education is significantly associated with severity of loneliness.

As regards religion affiliation of the respondents, data shows that frequency of clinical loneliness was noted to be slightly higher among the respondents who are members of Pentecostal at 8.7% as opposed to the Protestant/Evangelical (5.7%). On the contrary, frequency of moderate loneliness was higher among the Pentecostal (14.4%) compared to respondents whose affiliation was among the Catholics (5.4%). Chi-Square test shows that there was a significant difference in the distribution of respondents' religion affiliation and severity of loneliness (p=0.000). This means that significant relationship exists between severity of loneliness and severity of loneliness among the respondents.

Distribution of marital status and severity of loneliness showed that the frequency of clinical loneliness was slightly higher among single parents at 6.4% compared to the widows/widowers at 5.7%. Likewise, in terms of moderate loneliness, the frequency was slightly higher among the single parents at 12.7% as opposed to the separated/divorced at 7.4%. Statistical test using chi-square test indicated that the difference in the distribution of marital status and severity of loneliness (p=0.000). The implication of this finding indicated that the marital status, especially being a single parent, widows/widowers or separated/divorced status are associated with severity of loneliness.

The employment status of the respondents implies that clinical loneliness was higher among the older adults who are still in work force (13%) as opposed to other categories. In the same way, the respondents who have retired exhibit more of moderate loneliness at 14% as opposed to other. There was a significant difference in the distribution of employment status and that of severity of loneliness (p=0.000). this shows that there is a significant association between employment status of the respondents and the severity of loneliness. Similarly, concerning the financial status of the respondent, data shows that the frequency of clinical loneliness was observed to be higher among

respondents whose financial status was claimed to be average at 9.4% compared to other categorical variables. Also, moderate loneliness was noted to be higher among self-acclaimed average financial status at 23.7% as opposed to other categories. Meanwhile, Chi-square test indicated that there was a significant difference in the distribution of financial status and severity of loneliness among the respondents (p=0.000). This implies that financial status was significantly associated with levels of loneliness in this study.

Furthermore, in relation to living condition of the respondents, frequency of clinical loneliness was observed to be higher among the respondents who live alone (14.4%), compared to other categories. Likewise, moderate loneliness was higher among the respondents who live alone at 20.4% as opposed to other variables. Chi-square test indicated that the difference in the distribution was significant (p=0.000). The implication of this was that the living condition of the respondents especially respondents who live alone are significantly associated with severity of loneliness.

Regarding the use of mobile phone to communicate, data collected indicated that the frequency of clinical loneliness was higher among the respondent who uses phone frequently at 8.7% as opposed to the one who very rarely uses phone to communicate (5.7%). In the same way, moderate loneliness was higher among the respondents who use phone frequently (15.1%) as opposed to those who rarely use phone to communicate (12.4%). Chi-square test shows that the difference in the distribution of severity of loneliness and the use of phone (p=0.005). The implication of this finding was that frequency of phone use is significantly associated with feeling of loneliness.

4.4 Objective 2: The Risk Factors of Loneliness among the Participants

The second objective in this study sought to investigate the risk factors of loneliness among the participants. The Table 4.6 present the statistical modelling, the regression analysis which is a set

of statistical processes for estimating the predicting relationships between set of independent variables and dependent variable.

Table 7 Multicolinearity Coefficients Test

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	3.194	.236		13.560	.000	2.730	3.658		
Participant's age groups	-.122	.031	-.248	-3.899	.000	-.184	-.060	.432	2.315
Participant's gender	-.489	.072	-.330	-6.756	.000	-.631	-.346	.734	1.362
Level of education	.052	.022	.123	2.382	.018	.009	.095	.661	1.514
Religion affiliation	.028	.046	.034	.602	.547	-.063	.119	.536	1.867
Marital status	.329	.036	.490	9.043	.000	.257	.400	.597	1.675
Employment status	-.002	.034	-.004	-.067	.947	-.070	.065	.571	1.752
Financial status	-.485	.075	-.361	-6.502	.000	-.632	-.339	.568	1.761
Living condition	-.180	.052	-.201	-3.461	.001	-.282	-.077	.517	1.935
How often do you use phone to communicate	-.275	.070	-.187	-3.916	.000	-.413	-.137	.765	1.307

a. Dependent Variable: Severity of loneliness

Table 7 presents the multicolinearity coefficients test. Multicolinearity Diagnostic Coefficients was used to determine the level of inter-correlations or inter-associations among the independent variables, which is a prerequisite test to regression. This is to rule out the disturbance in the data, which can render the statistical inference unreliable. Consequently, multicolinearity can be spotted with the help of tolerance and its reciprocal, which is known as variance inflation factor (VIF). The interpretation of the VIF portrays the interpretation of the coefficient of multiple determination. Therefore, if the value of tolerance is less than 0.2 or 0.1 and simultaneously, if the value of VIF is 10 and above, then the multicolinearity is problematic and capable of render the results of regression inept for inference. As indicated on Table 7, the value of VIF for all the

independent variable models are less than 10 and consequently the value of tolerance greater than 0.1. This seems to suggest that there is no significant disturbing collinearity in the data that can affect the generality of the statistical inference of the risk factors of clinical loneliness among the respondents using ordinal regression as indicated in the next Table.

Table 8 PLUM - Ordinal Regression Testing Risk Factors of Loneliness among Older Adults

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Moderate loneliness]	15.596	90.333	.030	1	.863	-161.454	192.646
	[Clinical loneliness]	21.130	90.348	.055	1	.815	-155.949	198.210
Location	[Age= 55-60 years]	-7.227	3.913	3.411	1	.065	-14.897	.443
	[Age= 61-65 years]	-2.905	3.854	.568	1	.451	-10.459	4.648
	[Age= 66-70 years]	-15.054	3.522	18.268	1	.000	-21.957	-8.151
	[Age= 71-75 years]	17.172	3.359	26.141	1	.000	10.590	23.755
	[Age= 76-80 years]	0[a]	.	.	0	.	.	.
	[Gender= Male]	9.141	1.215	56.598	1	.000	6.760	11.523
	[Gender= Female]	0[a]	.	.	0	.	.	.
	[Edu: No formal edu]	.029	89.758	.000	1	1.000	-175.893	175.952
	[Edu: Primary]	5.080	89.769	.003	1	.955	-170.865	181.025
	[Edu: High school]	1.973	89.737	.000	1	.982	-173.908	177.853
	[Edu: Diploma/cert.]	2.746	89.746	.001	1	.976	-173.153	178.645
	[Edu: Bachelor degree]	4.053	89.770	.002	1	.964	-171.892	179.999
	[Edu: Master's degree]	2.299	89.759	.001	1	.980	-173.625	178.223
	[Edu: PhD]	0[a]	.	.	0	.	.	.
	[Rel: Catholics]	-2.133	2.885	.547	1	.460	-7.787	3.520
	[Rel: Pentecostal]	-16.936	3.733	20.584	1	.000	-24.252	-9.619
	[Rel:Protestant/Evang.]	-8.866	4.160	4.543	1	.033	-17.019	-.713
	[Rel: Muslim]	0[a]	.	.	0	.	.	.
	[Marital: Married]	-40.285	7.564	28.364	1	.072	-55.111	-25.460

[Marital: Single parent]	-8.737	2.409	13.153	1	.000	-13.459	-4.015
[Marital: separated/div]	-15.033	3.673	16.748	1	.000	-22.232	-7.833
[Marital: widow/er]	0[a]	.	.	0	.	.	.
[Employ: Retired]	.388	1.722	.051	1	.822	-2.988	3.763
[Employ: workforce]	8.438	1.634	26.678	1	.000	5.236	11.639
[Employ: self-employ]	-15.361	3.240	22.477	1	.000	-21.711	-9.011
[Employ: Trading/busi]	0[a]	.	.	0	.	.	.
[Financial: Poor]	17.711	8.667	4.176	1	.041	.725	34.698
[Financial: Average]	-.188	7.232	.001	1	.979	-14.363	13.986
[Financial: Affluence]	0[a]	.	.	0	.	.	.
[Living: I live alone]	24.504	4.452	30.293	1	.000	15.778	33.230
[Living: live wt spous]	39.917	8.925	20.002	1	.000	22.424	57.410
[Living: live wt famil]	0[a]	.	.	0	.	.	.
[Phone: frequently]	9.544	2.140	19.891	1	.000	5.350	13.738
[Phone: very rarely]	0[a]	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Table 8 presents the PLUM ordinal regression to test the risk factors of loneliness among the respondents in this study. Ordinal regression models also known as PLUM (Polytomous Universal Model) is a type of regression analysis used for predicting an ordinal variable, that is a variable whose value exists on an arbitrary scale where only the relative ordering between different values is significant. As indicated on the Table, the PLUM test showed that respondents aged 66-70 years (p=0.000; 95% CI: -21.957 – 8.151) and aged 71-75 years (p=0.000; 95% CI: 10.590 -23.755) were found to be at risk of loneliness. This is interpreted to mean that older adults aged 66-75 years are vulnerable to loneliness symptoms.

Likewise, results from ordinal regression indicated that being male was found to be at risk of clinical loneliness (p=0.000; 95%CI: 6.760 – 11.523). This implies that male older adults are

more likely to experience clinical loneliness compared to female older adults. Also, regression analyses indicated that among the respondent's religion affiliation, older adults from Pentecostal denomination (p=000; 95%CI: -24.252 - -9.619) and older adults from Protestant/Evangelical denominations are more at risk of exhibiting clinical loneliness compared to other religion affiliations. Furthermore, among the marital status categorical variables, the ordinal regression analysis revealed that older adults that are single parents are at risk of developing clinical loneliness (p=0.000; 95% CI: -13.459 - -4.015), similarly, older adults who were separated or divorced were at risk of clinical loneliness (p = 0.000; 95% CI: -22.232 - -7.833). These findings indicated that single parents, separated or divorced older adults are likely to present with loneliness symptoms.

Consequently, results from the Polytomous Universal Model (PLUM) showed the role of employment status on loneliness among the older adults. The respondents who were still in work force (p=0.000; 95% CI: 5.236-11.639), and the respondents who were self-employed (p=0.000; 95% CI: -21.711 - -9.011) were found to be at risk of developing loneliness. In the same way, data indicated that respondents who were self-acclaimed financially poor were at risk of exhibiting clinical loneliness (p=0.041; 95% CI: -14.363 – 13.986). The implications of these results indicated that older adults who are still in work force, self-employed and poor are likely to exhibit loneliness.

Moreover, findings from the ordinal regression revealed that respondents who live alone are at risk of clinical loneliness (p=0.000; 95% CI: 15.778 – 33.230), also, the finding indicated that older adults who live with spouse are at risk of loneliness clinically (p =0.000; 95% CI: 22.424 -57.410). The consequence of these findings showed that living alone as well as living with spouse could be the precursor of clinical loneliness. Besides, in terms of use of mobile phone to communicate, data from this study showed that the respondents who use mobile phone frequently

were at risk of clinical loneliness (p=0.000; 95% CI: 5.350 -13.738). This can be interpreted that the more frequent the older adults used mobile phone to communicate, the more likely they may develop clinical loneliness.

4.5 Objective 3: Correlation between Psychosocial Support and Loneliness among Older Adults

The third objective in this study sought to investigate the correlation that exists between psychosocial support and loneliness among older adults. Concerning the psychosocial support, the MSPSS a short instrument designed to assess an individual's subjective feelings and perception of support from family, friends and significant individuals in older adults was used to collect data from the respondents in this study. The amount of social support is rated on a seven-point Likert scale with responses ranging from very strongly disagree (=1) to very strongly agree (=7). The questionnaire measures the three aspects of perceived social support namely, the Significant Other Support; sum across items 1, 2, 5, and 10, then divide by 4; Family Support: sum across items 3, 4, 8, and 11, then divide by 4; the third subscale measures Friends Support: sum across items 6, 7, 9, and 12, then divide by 4 to get the mean. The subscale that the respondent scores highly represent the highest support he/she receives. Table 9 represents the frequency of psychosocial support subscales among the respondents;

Table 9 The Proportion of Social Support among the Respondents

Classification of Perceived Social Support	Frequency	Percent
Significant other support	55	18.4
Family Support	185	61.9
Friends Support	59	19.7
Total	299	100

Table 9 presents the frequency of social support subscales among the respondents. As indicated, the frequency of family support was significantly higher (185, 61.9%) compared to support from significant others (55, 18.4%) and support from friends (59, 19.7%). This finding showed that

older adults received more support significantly from the family compared to support from friends and significant others. The graph below represents the frequency.

Additionally, The Multidimensional Scale for Perceived Social Support (MSPSS) also was designed to assess an individual's subjective feelings associated with social support the individual received from significant others, family and friends. This is done by calculating the cumulative scores that ranges from 12 to 84. The mean scores are gotten by dividing total aggregate by 12. A mean score of 1 to 2.9 is considered low feeling of support, 3 to 5 indicates moderate feeling of support and 5.1 to 7 high feelings of support. The scores are interpreted as, the higher the score, the greater the feelings emanated from amount of available social support (Dambi et al., 2018). Table 4.9 shows the frequency of severity of psychosocial support

Table 10 The Proportion of Psychological Support among the Respondents

Frequency of Psychosocial Support	Frequency	Percent
) -2.9 = Low feelings from social support	11	3.7
3.0-5.0 = Moderate feelings from social support	166	55.5
5.1-7.0 = High feelings from social support	122	40.8
Total	299	100

Table 10 shows levels of psychosocial support among the respondents. The Table shows the levels of feeling associated with three subscales of social support namely; support from significant others, family support and support from friends. As indicated, the frequency of moderate feelings of social support was higher (166, 55.5%) compared to high feelings (122, 40.8%) and low feelings of social support (11, 3.7%). This is interpreted that the higher the score, the greater the feelings emanated from amount of available social support. This is represented in the table below;

Table 11 Fisher's Exact Test Indicating Linear Association of Feelings and Social Support

		Severity of Loneliness			Exact Test	
Severity of Psychosocial Support	Total	No/low	moderate	clinical	value	Sig.
Low feelings of social support	11(3.7)	1(0.3)	10(3.3)	0 (0.0)	58.859	.000
Moderate feelings social support	166(55.5)	80(26.8)	45(15.1)	41(13.7)		
High feeling of social support	122(40.8)	93(31.1)	27(9.0)	2(0.7)		

Table 11 shows the Fisher's Exact test. This statistical model is used to determine if the proportions of categories in two group variables such as severity of loneliness and levels of psychosocial support significantly differ from each other. This test determines whether or not there is a significant association between two categorical variables. As indicated in the Table, the respondents who had low feelings of social support (3.7%) was shown to exhibit moderate level of loneliness (3.3%), and older adults who display moderate feelings of psychosocial support (55.5%), equally display low or no loneliness (26.8%). Likewise, the respondents who demonstrated high feelings of social support (40.8) similarly demonstrated No/low loneliness (31.1%). The Fisher's Exact analysis of contingency indicated that there was a significant linear association between psychosocial support and severity of loneliness among the older adults (p=0.000). The implication of these results showed that the higher social support is associated with low or no loneliness, and that lower social support is related to moderate or clinical loneliness.

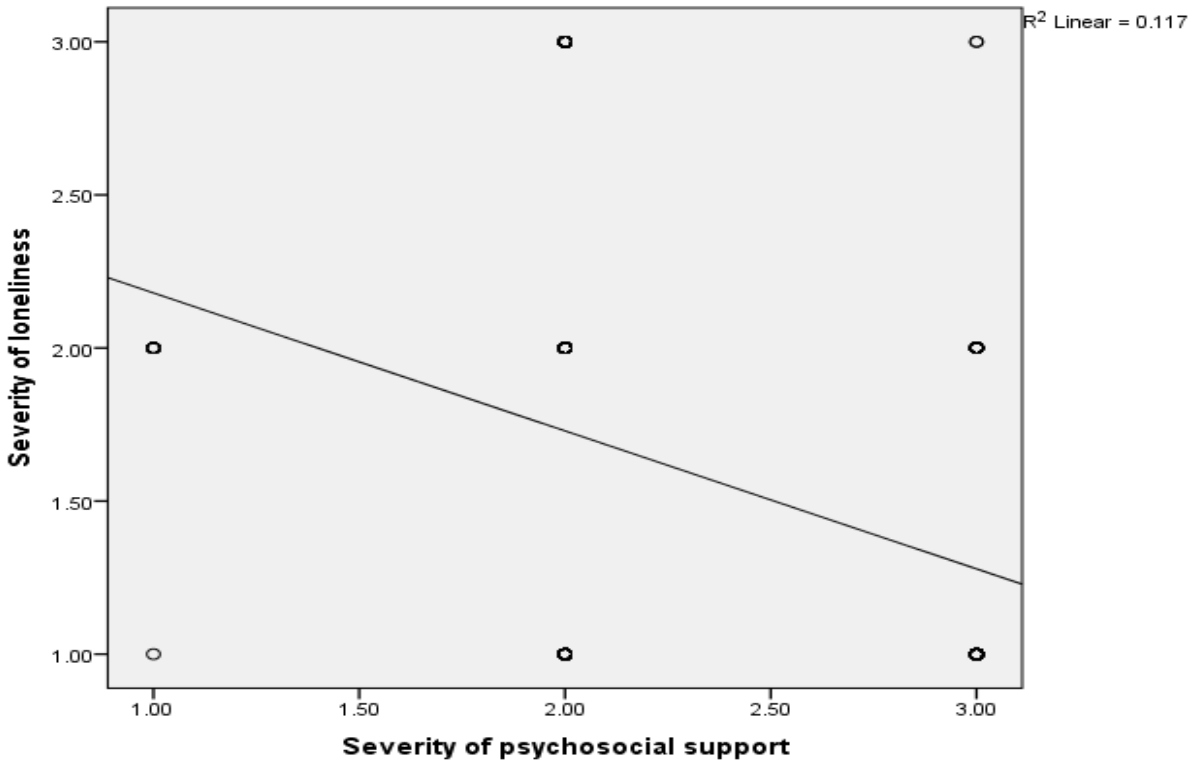


Figure 3 **Linear Regression Showing Significant Association between Psychosocial Support and Loneliness**

Figure 3 represents the analysis of contingency demonstrating a significant linear relationship between psychosocial support and severity of loneliness among the older adults in the dataset. It represents data points on a two-dimensional Cartesian system.

Table 12 Correlation between Psychosocial Support, Loneliness and Sociodemographic Characteristics

	Age	Gender	Edu	Rel	Mar	Empl	Fin	Liv.Co	Phone	Alone	Support
Age	-										
Gender	158**	-									
Edu	-314**	-002	-								
Rel	.194**	-409**	-.147	-							
Mar	.205**	.012	.021	.227**	-						
Empl.	-238**	.129*	.192**	-392**	-508**	-					
Fin.	-207**	-358**	.331**	.382**	.106	-002	-				
Lin.Co	.606**	.125*	.010	.004	.169**	-131*	.072	-			
Phone	.158**	.085	-233**	.009	.283**	.032	.020	.160**	-		
Alone	-308**	-290**	.128*	.075	.322**	-205**	-104	-365**	-184**	-	
support	-004	.056	-.005	-117*	-.090	.374**	.299**	.177**	.192**	-342*	-

**correlation is significant at the 0.01 level (2-tailed)
*correlation is significant at the 0.05 level (2-tailed)

The Table 12 represents the correlation statistics showing the relationship between sociodemographic characteristics, psychosocial support and clinical loneliness. Pearson correlation coefficient, bivariate correlation was used to analyse and measure the linear correlation between two sets of data. As indicated in the Table, there was a strong linear correlation within-groups of social demographic characteristics at 0.01 levels, 2 tailed. (Ps < 0.5). Meanwhile, negative correlation was reported between loneliness and age (r = -.308; p = 0.01). negative correlation implies that the two variables moves in opposite direction. This means that the relationship between loneliness and age is negative in sense that an increase in one variable is associated with a decrease in other. It implies that as the older adults increase in age, level of loneliness decreases. Similarly, a strong correlation coefficient exists between gender and

loneliness (r = -.290; p = 0.01). This means that a strong relationship between gender and levels of loneliness among older adults.

Further, the correlation Table indicated a weak positive correlation between levels of education and loneliness (r =.128; p=0.05). Positive correlation implies that the two variable move in the same direction, meaning that when the value of one variable increases, the value of other variable also increases. In this case, it means the increase in levels of education, the severity of loneliness also increases. However, it should be noted that the significance in this result is weak. This means that although both variables tend to go up in response to one another, the relationship is not very strong; hence, the inferential statement should be with caution. Likewise, a strong positive correlation coefficient exists between marital status of the older adults and severity of loneliness (r =.322; p =0.01). strong positive correlation implies a strong connection between marital status and loneliness.

In addition, this study found a negative correlation coefficient between employment status and severity of loneliness (r = -.205; p =0.05). Also, negative correlation between living condition of the older adults and severity of loneliness (r = -.365; p = 0.01) and between frequency of use of phone to communicate and severity of loneliness (r = -.184; p = 0.01). These negative correlations showed that the variables move in opposite direction.

Nevertheless, the correlation Table shows a weak negative correlation between perceived psychosocial support and religion affiliation of the older adults (r = -.117; p = 0.05). This implies that both variables move in opposite direction but the strength of relationship is very weak. In addition to these, this study found a strong positive correlation coefficient between perceived psychosocial support and employment status (r = .374; p =0.01). This means that when the level of employment increases, the psychosocial support also increases. Also, positive correlation exists

between financial status of the older adults and perceived psychosocial support (r = .299; p = 0.01). The implication of this finding is that the increased financial status of the older adults attracts increased perceived psychosocial support. Likewise, a positive correlation shows between living condition and perceived psychosocial support (r = .177; p = 0.01). This implies that an increase in financial status of the respondents, correlates with increase perceived psychosocial support. Equally, strong positive correlation coefficient exits between the use of phone to communicate and perceived psychosocial support (r = 192; p = 0.01). This also means that the higher the frequency in using phone to communicate, the higher the perceived psychosocial support the individual receives.

To end with, correlation Table reveals weak negative correlation coefficient between perceived psychosocial support and severity of loneliness (r = -.342; p = 0.05). Negative correlation between these variables means that they have an inverse relationship, implying that as severity of loneliness increases, perceived psychosocial support decreases. The implication of weak negative correlation in this study is that as severity of loneliness increases, the perceived psychosocial support tends to decrease, but in a weak or unreliable manner.

Table 13 Binary Logistic Regression showing the Adjusted Odd Ratio of psychosocial support and clinical loneliness

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1[a]	MSPSrecoded			28.428	2	.000			
	Low support (1)	3.468	1.070	10.501	1	.001	32.069	3.937	261.219
	High support(2)	1.238	.263	22.082	1	.000	3.447	2.057	5.777
	Constant	-1.165	.213	30.019	1	.000	.312		

a. Variable(s) entered on step 1: MSPSrecoded.

Table 13 demonstrates the binary logistic regression showing the Adjusted Odd Ratio (AOR) of psychosocial support and clinical loneliness among the older adults. Binary regression adjusted

odds ratios is a method used to fit a regression model, which has been adjusted to account for other predictor variables in a model to predict the ratio effect of the relationship between a primary predictor variable and a dichotomous categorical outcome variable. Logistic regression generates adjusted odds ratios with 95% confidence intervals. As indicated on the Table 4.12, respondents who had low support (AOR: 32.94; 95% CI: 3.937 – 261.219) are at 32.94 odd ratio likelihood to exhibit clinical loneliness. Similarly, respondents who got high perceived psychosocial support are less likely to manifest clinical loneliness (AOR: 3.447; 95% CI: 2.057 – 5.777). This means that respondents with high psychosocial support are 3.447 odd ratio likelihood to exhibit clinical loneliness. Finding from this model implied that the lesser the psychosocial support, the higher the likelihood to develop clinical loneliness.

4.6 The Hypotheses

H0 There is no significant difference between lonely older adults with no psychosocial support and older adults who experience psychosocial support.

Ha There is a significant difference between lonely older adults with no psychosocial support and older adults who experience psychosocial support.

Table 14 Frequency of Loneliness borderline

Variables	Frequency	Percent
No/low loneliness	174	58.2
Loneliness borderline cut off points	125	41.8

Table 14 presents the distribution of loneliness borderline among the respondents. Respondents who scored 0-28 were classified to present no or low loneliness whereas the respondents who scored from 29 and above were classified as the cut-off point at borderline for loneliness. As indicated on the Table, the frequency of no or low loneliness was higher at 58.2%. Whereas, 41.8% of the respondents who scored 19 points and above were presenting with loneliness at borderline.

Table 15 ANOVA Table testing the hypothesis of loneliness and psychosocial support

Severity of psychosocial support

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		10.324	1	10.324	37.638	.000
	Linear Term	Unweighted	10.324	1	10.324	37.638	.000
		Weighted	10.324	1	10.324	37.638	.000
Within Groups			81.468	297	.274		
Total			91.793	298			

Table 15 presents the result of the ANOVA testing whether there was a significant difference in the mean of lonely adults with no psychosocial support and older adults who experience psychosocial support Analysis of variance (ANOVA) was used to assess the systematic factors of loneliness and random factors of psychosocial support. This test was to examine where there was a significant difference between systematic and random factors among the respondents who receive random factors of psychosocial support and those who do not in relation with loneliness. Result from the ANOVA test implies that there was a significant difference (p=0.000) hereby reject the null hypothesis and accepts the alternative hypothesis. This implies that psychosocial support is determinant of loneliness among the older adults.

4.7 Chapter Summary

Chapter four generally presented the findings of the study in both graphic nature and pros writing. These findings from this study shall be discussed in line with existing literatures and in view of the specific objectives in the next chapter.

CHAPTER 5: DISCUSSION

5.1 Introduction of the Chapter

The chapter discusses findings from this study in line with the respondent's social demographic characteristics and key findings of the three main objectives of this study in relationship with the existing literatures and theories. From the result of the discussion, the research questions and the conceptual framework were revisited to assess the new relationship of the variables in the study. The study finally gave suggestions on the improvement of the theories that the study anchored on.

5.1.1 Restating Research Questions

The study sought to investigate the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya. The analysis and interpretation of the research's broad objective and research question indicated that there was a weak negative correlation coefficient between perceived psychosocial support and severity of loneliness ($r = -.342$; $p = 0.05$).

5.1.2 Revisiting Conceptual Framework

The conceptual framework comprised a directional relationship of psychosocial support and loneliness. The initial framework shown sociodemographic characteristics as predict factors of loneliness. Figure 5.1 below portraits the established relationship between perceived psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya.

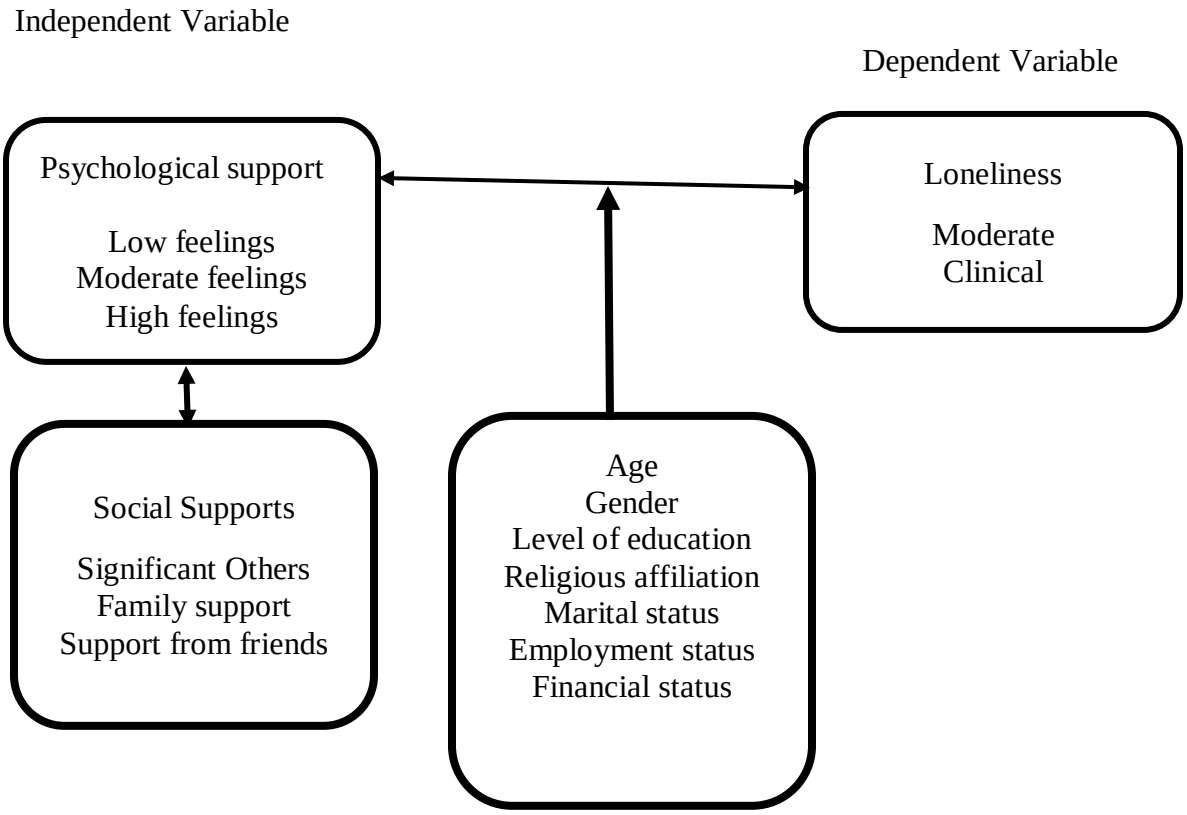


Figure 4 Conceptual Model of Relationship Between Psychosocial Support and Loneliness among Older Adults in Mathira Sub-county.

Results from this study showed a causal and effect relationship between psychosocial support and loneliness (p=0.05), this makes the psychosocial support an independent variable in this study. This is because independent variable is a condition in a research study that causes an effect on a dependent variable. It is cause and effect relationship on the outcome variable (Bhandari, 2022). Loneliness in this study was a dependent variable, because levels of loneliness changes because of changes that occur in independent variable (Cherry, 2022). As show in the study, the lesser the psychosocial support, the higher the likelihood to develop clinical loneliness (p=0.05). Result from this study similarly showed the role of sociodemographic characteristics in intervening in the study. The respondents' demographic features include age, gender, levels of education, religion affiliation, marital status, employment status and financial status. Therefore, these sociodemographic characteristics are intervening variable in this study. According to Zach (2020),

intervening variable is a variable that affects the relationship between an independent variable and a dependent variable. For example, frequency of clinical loneliness was found to be higher among male older adults as opposed to female counterparts. Also, frequency of clinical loneliness was slightly higher among single parents, and widows/widowers as opposed to other marital status categories.

5.2 Discussion of Key Findings

This section will discuss key findings of the study and the literature related to all the variables of the study.

5.2.1 The Levels of Loneliness among the Older Adults

The study found the frequency of moderate loneliness at 27.4%, and clinical loneliness at 14.4%. Results from this study were almost similar to several other studies. For example, a study in US among older adults found the levels of loneliness at 20% (Mullen et al., 2019), and similar study found the 35% levels of loneliness among the same population ((Elias, 2018; Gardiner et al., 2020). Number of studies among European older adults 60 years and older found the levels of loneliness in Ukraine at 34%, Russia at 24.4%, Hungary at 21.1% and Poland at 20.1% (Yang & Victor, 2011) and among Norwegian older adults at 30.2%. (Nicolaisen & Thorsen, 2019). However, levels of loneliness from other studies in Africa seems to be higher compared to the results from this study. For example, a study among the same population found the levels of loneliness at 39.6% (Geffen et al, 2019), and in Nigeria, the study found the levels of loneliness at 21.8% (Igbokwe et al., 2020). Whereas, levels of loneliness in Uganda was estimated to be at 70% (Nzabona et al.,2015).

5.2.2 Risk Factors of Loneliness among Older Adults

The second objective in this study sought to examine factors that put the older adults at risk of loneliness. Findings from this study showed that respondents aged 66-70 years (p=0.000; 95% CI: -21.957 – 8.151) and aged 71-75 years (p=0.000; 95% CI: 10.590 -23.755) were found to be at risk of clinical loneliness. These results concur with a study among mid-adults, and late-adults, where it was reported that younger age (mid-adults) were found to be at risk of loneliness compared to the late adults (Taylor, 2019). Similarly, previous study by Yang and Victor (2008) found risk factors associated with loneliness among older adults to include those aged 65 years and older.

In addition, results from ordinal regression in this present study found that being male was found to be at risk of clinical loneliness (p=0.000; 95%CI: 6.760 – 11.523). This implies that male older adults are more likely to experience clinical loneliness compared to female older adults. This finding dissimilar to recent studies on gender difference in loneliness among older adults. For example, in a study in India, women were reported to exhibit more of loneliness compared to men older adults. The study indicated that women who were household-head had 60% higher likelihood of reporting loneliness than men who were household head. Women who were either separated/divorced/widowed/never married had higher (AOR: 1.26; $p < 0.05$) likelihood of reporting loneliness than that of separated/divorced/widowed/never-married men. Additionally, retired women had (AOR: 1.22; $p < 0.05$) higher likelihood of reporting loneliness in comparison to retired men. Lastly, women who had lesser social participation had higher odds for reporting loneliness than men who were lesser socially active (AOR: 1.69; $p < 0.05$) (Srivastava, Ramanathan, Dhillon, Maurya , & Singh , 2021).

Also, regression analyses indicated that among the respondent's religion affiliation, older adults from Pentecostal denomination (p=000; 95% CI: -24.252 - -9.619) and older adults from

Protestant/Evangelical denominations are more at risk of exhibiting clinical loneliness compared to other religion affiliations. On the contrary, several studies show that regular attendance at religious service is associated with lower levels of social isolation and loneliness, unlike revealing it as a risk factor in this study. Sunshine, Terrence, and Christopher (2013) reported contrarily to the finding from this study that religious attendance and affiliation with religious organization is associated with higher levels of social integration and social support, and that social integration and social support are associated with lower levels of loneliness. However, additional needed investigation is recommended so as to explain when older adults are unable to attend religious gathering due to old age, whether this condition is able to put those population at risk of loneliness (Sunshine, et al., 2013).

Furthermore, among the marital status categorical variables, the ordinal regression analysis revealed that single parents (p=0.000; 95% CI: -13.459 - -4.015), separated or divorced were at risk of clinical loneliness (p = 0.000; 95% CI: -22.232 - -7.833). These findings correspond with several other studies, in which single parents, the separated/divorced/widowed/never married had higher (AOR: 1.26; $p < 0.05$) likelihood of reporting loneliness (Srivastava, Ramanathan, Dhillon, Maurya , & Singh , 2021). Results from a regression analysis in South Africa revealed that married or cohabiting individuals were significantly less likely to experience loneliness than unmarried or non-cohabiting ones (Phaswana-Mafuya & Peltzer, 2017). Similarly, a systematic review of longitudinal risk factors of loneliness among older adults showed that not being married or partnered and partner loss were reported to be consistently at risk of loneliness among the older adults (Dahlberg, et al., 2022).

Furthermore, respondents who were still in work force (p=0.000; 95% CI: 5.236-11.639), and the respondents who were self-employed (p=0.000; 95% CI: -21.711 - -9.011) were found to

be at risk of developing clinical loneliness. These seem to be in conflict with other studies among older adults. For instance, a study among elderly in USA suggested that retired older adults were found to be more at risk of loneliness as opposed to older adults still at work force or who were self-employed (Gerst-Emerson & Jayawardhana, 2016). In fact, a study among older adults during Covid-19 pandemic found self-employment as a protective factor rather than being a risk factor of loneliness (Hanesaka & Hirano, 2022).

Moreover, results from this present study showed that respondents who were self-acclaimed financially poor were at risk of exhibiting clinical loneliness (p=0.041; 95% CI: -14.363 – 13.986). Results of this current research align with a previous study in lonely elderly in US, where it was found that elderly with depressed finances were at greater risk of loneliness (Emerson & Jayawardhana , 2016). Also, this finding also corresponds with a research that found negative financial shock increases loneliness in older adults as well as chronic health conditions, functional limitations, religious service attendance, and relationship strain (Berger, 2020). Similarly, a Finish study found that low household incomes were related to social isolation and loneliness in older adults (Tanskanen & Anttila, 2016).

Moreover, findings from the ordinal regression in this current study revealed that respondents who live alone are at risk of clinical loneliness (p=0.000; 95% CI: 15.778 – 33.230), also, the finding indicated that older adults who live with spouse are at risk of loneliness clinically (p =0.000; 95% CI: 22.424 -57.410). The consequence of these findings showed that living alone as well as living with spouse could be the precursor of clinical loneliness. In line with this finding, a meta-analysis showed that quality of social network, living arrangement, living alone, living at elderly nursing homes, and living with spouse in dysfunctional relationship contribute gravely to loneliness in older adults (Pinquart & Sörensen, 2019).

Data from this study showed that the respondents who use mobile phone frequently were at risk of clinical loneliness (p=0.000; 95% CI: 5.350 -13.738). In other words, the frequent the older adults use mobile phone to communicate, the implication of clinical loneliness. This submission in this study concur with other studies such as a study by Petersen, et al., 2016), in which median daily number of calls, daily phone use was associated with levels of loneliness and mostly that loneliness was significantly related to outgoing calls than incoming calls. Other study similarly reported the same findings that overall quality use of phone contact, and social isolation was significantly associated with loneliness (Navabi et al., 2016).

5.2.3 Correlation between Psychosocial Support and Loneliness

The third objective in this study sought to investigate the correlation that exists between psychosocial support and loneliness among older adults. Results from this study showed that the frequency of family support was significantly higher (185, 61.9%) compared to support from significant others (55, 18.4%) and support from friends (59, 19.7%). This finding showed that older adults received more support significantly from the family compared to support from friends and significant others. These results match up with results from a study on the role of the family, friends and significant others in providing social support and enhancing quality of life in cancer patients, where it was reported that significant majority of the patients receive more of family support as opposed to other sources of social support (Banovcinova & Basková, 2016).

Results from Fisher's Exact Test in this current study showed that the respondents who had low feelings of social support (3.7%) was shown to exhibit moderate level of loneliness (3.3%), and older adults who display moderate feelings of psychosocial support (55.5%), equally display low or no loneliness (26.8%). Likewise, the respondents who demonstrated high feelings of social support (40.8) similarly demonstrated No/low loneliness (31.1%). The Fisher's Exact analysis of

contingency indicated that there was a significant linear association between psychosocial support and severity of loneliness among the older adults (p=0.000). Findings from this study are consistent with available data, where it was shown that higher self-rated social support was associated with higher life satisfaction and that loneliness was associated with lower perceived psychosocial support. The same study found that social support and positive social relationships are protective factors of lower psychological wellbeing, hereby noted that high levels of social support from friends and family are less likely to be lonely (Dahal et al., 2021).

Likewise, this current study found weak negative correlation coefficient between perceived psychosocial support and severity of loneliness (r = -.342; p = 0.05). In other words, an inverse relationship exists to imply that as severity of loneliness increases, perceived psychosocial support decreases. This finding is consistent with a study on social support and sense of loneliness in solitary older adults, whereby showed that poor mental health status, financial inadequacy and weak social support networks were significantly associated with the sense of loneliness, with social support being the most prominent risk factor (Bai, et al.,2017). Also, result from the current research is in resemblance with findings from a study by Chen and Feeley (2014), which revealed that higher psychosocial support from all social networks correlates with reduced loneliness. This seems to imply that the higher support older adults receive, the lower the feelings of loneliness.

Similarly, data from this present study showed that the respondents who had low support (AOR: 32.94; 95% CI: 3.937 – 261.219) are at 32.94 odd ratio likelihood to exhibit clinical loneliness. Similarly, respondents who got high perceived psychosocial support are less likely to manifest clinical loneliness (AOR: 3.447; 95% CI: 2.057 – 5.777). Finding from this model implied that the lesser the psychosocial support, the higher the likelihood to develop clinical loneliness. This is comparably alike with a study, which suggest that integration into social support networks and

improving relationship quality will significantly reduce the intensity of loneliness among the older adults (Santini et al., 2019). Also, study on relationship between psychosocial support and loneliness concurs with finding of the current study, where it was revealed that low level of psychosocial support correlates with severe levels of loneliness among older adults (Siconolfi et al., 2013).

5.3 Improvement in Theory

This present study has yielded empirical knowledge for its theoretical models that investigated the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-County, Kenya. The study, which used quantitative approach in research to determine the relationship between the study variables. The findings from the Pearson correlation test in this study found weak negative correlation coefficient between perceived psychosocial support and severity of loneliness ($r = -.342$; $p = 0.05$). The emerging position from this study implies that an inverse relationship exists between loneliness and perceived psychosocial support. Also, result from the binary logistic regression postulated that lower support are at 32.94 odd ratio likelihood to exhibit clinical loneliness (AOR: 32.94; 95% CI: 3.937 – 261.219). An emerging theory from this study showed that the lesser the psychosocial support, the higher the likelihood to develop clinical loneliness.

The main findings from this study complement Perlman's psychological theory on loneliness. The theorist postulated four dimensions of loneliness namely cognitive appraisal, external social environment perspective, personal growth and cognitive process. The cognitive appraisal interprets loneliness as the negative outcome of the individual's cognitive appraisals. The external social environment perspective proposes that feelings of loneliness are brought about by interacting conditions of the external social environment, the individual's social network and their

personal disposition. Whereas, personal sees living with loneliness as mandatory for personal growth and the cognitive process, which is cognitive appraisal to understand the concept of loneliness among older adults.

Not only that, findings from this study complement the social theory to understand and explain the concept of loneliness among older adults. Understanding loneliness from social theory's perspective (Victor et al., 2000). The theory postulated that loneliness is subjective distressed feeling of being alone or separated. It was postulated that it is possible to feel lonely while among other people, and one can be alone and yet not feel lonely. Perlman and Peplau (1982) perceives social isolation as the state of having minimal contact with others whereas, loneliness is a subjective state of negative feelings about having a lower level of social contact than desired. This was exact findings from this study that respondents who had lower social support exhibit higher level of loneliness, hereby postulating that loneliness is an emotional reaction to social isolation.

CHAPTER 6:
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter provides the summary of the findings, conclusions and recommendations informed by the findings of this study.

6.2 Summary

The broad objective of this study is to investigate the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-County, Kenya. The study used quantitative approach in research and employed a correlational design to determine the relationship between the study variables. Data was collected using a researcher-generated socio-demographic questionnaire, MSPSS, and UCLA Loneliness Scale. Out of the 330 questionnaires, 299 questionnaires were returned for data analysis. The respondent's age ranges from 55 -80 years, with higher levels of aged 55-60 years and majority of the respondents were male.

This study sought answers to three research questions. The first research question: What are the levels of loneliness among the older adults in Mathira West Sub-county, Kenya? This study found the levels of moderate loneliness at 27.4% and the levels of clinical loneliness at 14.4%. The second research question: What are the risk factors of loneliness among the older adults in Mathira West Sub-county, Kenya? Findings in this study state that respondents aged 66-70 years (p=0.000; 95% CI: -21.957 – 8.151) and aged 71-75 years (p=0.000; 95% CI: 10.590 -23.755) were found to be at risk of clinical loneliness. Also, this study found that being male was found to be at risk of clinical loneliness (p=0.000; 95%CI: 6.760 – 11.523). similarly, older adults who were separated or divorced were at risk of clinical loneliness (p = 0.000; 95% CI: -22.232 - -7.833). These findings indicated that single parents, separated or divorced older adults are likely to exhibit clinical loneliness. Also, data from this study indicated that respondents who were self-acclaimed

financially poor were at risk of exhibiting clinical loneliness (p=0.041; 95% CI: -14.363 – 13.986). Additionally, data from this study showed that the respondents who use mobile phone frequently were at risk of clinical loneliness (p=0.000; 95% CI: 5.350 -13.738). This can be interpreted that the frequent the older adults use mobile phone to communicate, the implication of clinical loneliness.

The third research question in this study is: What is the correlation between psychosocial support and loneliness among older adults in Mathira West Sub-county, Kenya? This current study found weak negative correlation coefficient between perceived psychosocial support and severity of loneliness (r = -.342; p = 0.05). Similarly, data from this present study showed that the respondents who had low support (AOR: 32.94; 95% CI: 3.937 – 261.219). Finding from this model implied that the lesser the psychosocial support, the higher the likelihood to develop loneliness.

6.3 Conclusion

This study reports the prevalence of moderate loneliness at 27.4% and the levels of clinical loneliness at 14.4% among older adults. More so, majority of the respondents received support from family compared to support they received from friends and significant others. This place major importance to family cohesion and that older adults need perceived psychosocial support more from family. This is not to ignore necessary support from friends and well-wishers. This study also postulated that perceived psychosocial support correlates with loneliness. In this study, it is posited that the lesser the psychosocial support, the higher the likelihood to develop clinical.

6.4 Recommendations

The levels of moderate loneliness at 27.4% and clinical loneliness at 14.4% cannot be ignored, therefore the following recommendation are hereby suggested:

1. Family support is crucial to mitigate loneliness among older adults. It is hereby recommended that family members of older adults may increase the support older adults are receiving for emotional stability.
2. This study showed that levels of loneliness in older adults was higher among members of the Pentecostal and protestant/evangelical. This study therefore recommends that Churches may set up ministries to connect with Church members by showing more cares and connect with members emotionally especially the older adults, who might not be strong enough to physically attend Church services.
3. This study found that clinical loneliness in prevalent among the respondents who were separated, divorced and single parents. It is recommended therefore that government policy or appropriate stakeholders might make workable policy deliberately to reduce the proportion of single parenthood, separation and divorce rate in Kenya.
4. Findings from this study revealed that living alone is a major risk factor of severe loneliness in older adults. This study therefore recommends that government or non-governmental organizations might invest public funds to set up nursing homes for aged individuals who might not have other options than to live alone.
5. One of the major limitations of this study is the fact that it is not an intervention research. For further study, it is recommended that an intervention research might be conceptualized for older adults who might be diagnosed with severe loneliness.

6.5. General Recommendation

For further study, it is imperative for researcher to explore the need for assessment to investigate if the older adults with clinical loneliness might be presenting with other mental health conditions such as depression, anxiety, PTSD, and suicide behaviour in older adults.

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APPENDICES

Appendix A: Participant Informed Consent

Dear Participants,

I am currently a post-graduate student of the above named institution. I am presently carrying out a research on correlation between psychosocial support and loneliness among older adults in Mathira sub-county, Kenya in partial fulfilment of the Master's degree in counselling psychology. I humbly request your kind participation in this study which will be making use of questionnaire to obtain information from the participants. Participation is voluntary and any information provided by you will be treated with utmost respect and confidentiality. No harm is intended based on this study and the questionnaire used for this study will be duly destroyed once they are no longer needed for this study.

Thank you in anticipation for your cooperation.

Sincerely yours,

Signed----------
Agnes Nyamu
Please, kindly sign below if you are willing to participate in this study.
Sign---------- Date----------

Appendix B: Socio-Demographic Questionnaire

Dear Participant,

I am currently a post-graduate student of counselling psychology and I am carrying out a research on correlation between psychosocial support and loneliness among older adults in Mathira sub-county, Kenya.

I humbly request you to kindly respond to all the questions in this questionnaire by ticking (√) just one response that best suits you from the options provided for each question. Your information will be treated with utmost respect and confidentiality. You are requested not to write your name on this questionnaire.

Instruction: Please answer all the questions below by ticking (√) your appropriate response in the space provided.

Age:

55-60 [ ]
61-65 [ ]
66-70 [ ]
71-75 [ ]
76-80 [ ]

Gender:

Male [ ]
Female [ ]

Level of Education:

No formal education [ ]
Primary [ ]
High School [ ]
Diploma/Certificate [ ]
Bachelor Degree [ ]
Master's Degree [ ]
PhD [ ]

Religion Affiliation:

Catholics [ ]
Pentecostal [ ]
Protestant/Evangelical l [ ]

Muslim [ ]
Others [ ]

Marital Status

Married [ ]
Single Parent [ ]
Separated/divorced [ ]
Widow/Widower [ ]

Employment Status

Retired [ ]
Still in workforce [ ]
Self-employed [ ]
Trading/Business [ ]

Financial status

Poor [ ]
Average [ ]
Affluence [ ]

Living Condition

I live alone [ ]
I live with spouse alone [ ]
I live with family [ ]

How Often do you use phone to communicate?

Frequently [ ]
Very Rarely [ ]

Appendix C: The Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7	SO
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	SO
3.	My family really tries to help me.	1	2	3	4	5	6	7	Fam
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	Fam
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7	SO
6.	My friends really try to help me.	1	2	3	4	5	6	7	Fri
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7	Fri
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7	Fam
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	Fri
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7	SO
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7	Fam
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7	Fri

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).

Appendix D: UCLA Loneliness Scale

Instructions: Indicate how often each of the statements below is descriptive of you.

O indicates "I often feel this way"
S indicates "I sometimes feel this way"
R indicates "I rarely feel this way"
N indicates "I never feel this way"

1.	I am unhappy doing so many things alone	**O S R N**
2.	I have nobody to talk to	**O S R N**
3.	I cannot tolerate being so alone	**O S R N**
4.	I lack companionship	**O S R N**
5.	I feel as if nobody really understands me	**O S R N**
6.	I find myself waiting for people to call or write	**O S R N**
7.	There is no one I can turn to O S R N 8. I am no longer close to anyone	**O S R N**
9.	My interests and ideas are not shared by those around me	**O S R N**
10.	I feel left out	**O S R N**
11.	I feel completely alone	**O S R N**
12.	I am unable to reach out and communicate with those around me	**O S R N**
13.	My social relationships are superficial	**O S R N**
14.	I feel starved for company	**O S R N**
15.	No one really knows me well	**O S R N**
16.	I feel isolated from others	**O S R N**
17.	I am unhappy being so withdrawn	**O S R N**
18.	It is difficult for me to make friends	**O S R N**
19.	I feel shut out and excluded by others	**O S R N**
20.	People are around me but not with me	**O S R N**

Appendix E: Ethics Clearance

TANGAZA UNIVERSITY COLLEGE

The Catholic University of Eastern Africa

OFFICE OF THE DIRECTOR OF RESEARCH & POST-GRADUATE STUDIES

E-mail: dir.pgsr@tangaza.ac.ke **Website:** www.tangaza.ac.ke

OUR Ref: DPGSR/ER/09/2022 **Date:** 29th September 2022

Agnes Wakonyu Nyamu
Institute for Youth Studies
School of Arts & Social Sciences
Tangaza University College

Dear Agnes,

RE: ETHICS CLEARANCE FOR AGNES WAKONYU NYAMU, REG. NO. 19/00358

Reference is made to your letter dated 21st September 2022 requesting for ethical clearance of your research proposal to carry out a study on "***Correlation between psycho-social support and loneliness among older adults in Mathira Sub-County, Kenya***".

I am pleased to inform you that, your research proposal has been reviewed and you can now apply for research permit. You are advised to submit your proposal to the National Commission for Science, Technology and Innovation (NACOSTI), for the issuance of a research permit and further guidance before commencing the data collection exercise for your study. You are also advised to adhere to the code of ethics as regards the protection of human subjects during the entire process of your study.

This approval is valid for one year from **29th September 2022.**

Please, ensure that after the data analysis and final write up, you submit a soft copy of the thesis to the Director of Research & Post-Graduate Studies – Tangaza University College for records purposes.

Yours sincerely,

Director - Research & Postgraduate Studies
29 SEP 2022
Sign:
TANGAZA UNIVERSITY COLLEGE

DR. DANIEL M. KITONGA (Ph.D.)
Director, Research & Post-Graduate Studies
Tangaza University College

CC: **Rev. Dr. Hubert Pinto** – Programme Leader, M.A. Counselling Psychology (IYS)

P.O. Box 15055 - 00509 Langata, Nairobi Kenya
Tel: +254 20 8097667 / 0732 897 000 / 0733 685 059 / 0722 204 724 / 0714 610 777
Email: inquiries@tangaza.ac.ke
Website: www.tangaza.ac.ke

Appendix F: Research Permit

TANGAZA UNIVERSITY COLLEGE

The Catholic University of Eastern Africa

OFFICE OF THE DIRECTOR OF RESEARCH & POST GRADUATE STUDIES

E-mail: dir.pgsr@tangaza.ac.ke **Website:** www.tangaza.ac.ke

OUR Ref: DPGSR/ER/09/2022 **Date:** 29th September 2022

To The Commission Secretary,
National Commission for Science, Technology and Innovation
P.O. Box 30623,
Nairobi – Kenya.

Dear Sir/Madam,

Re: Research Permit for Agnes Wakonyu Nyamu

This is to confirm that the person named in this letter is a student at Tangaza University College (TUC). She is registered in the Institute for Youth Studies (Reg. No. 19/00358) and she is pursuing M.A degree in Counselling Psychology.

Agnes has met all our provisional academic requirements leading to data collection. However, she cannot proceed to the field before getting a Research Permit from the National Commission for Science, Technology and Innovation (NACOSTI). Kindly assist her to process the permit for data collection for her M.A. Thesis.

Thanking you in advance for your cooperation

Yours sincerely,

Director - Research & Postgraduate Studies
Tel: 0714 610 777 / 0733 685 059
29 SEP 2022
Sign:
TANGAZA UNIVERSITY COLLEGE

Dr. Daniel M. Kitonga (Ph.D.)
Director, Research & Post-Graduate Studies

CC:
Rev. Dr. Hubert Pinto – Programme Leader, M. A. Counselling Psychology (IYS)

P.O. Box 15055 - 00509 Langata, Nairobi Kenya
Tel: +254 20 8097667 / 0732 897 000 / 0733 685 059 / 0722 204 724 / 0714 610 777
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Appendix G: Research License

REPUBLIC OF KENYA

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RESEARCH LICENSE

This is to Certify that Ms.. Agnes Nyamu Wakonyu of Tangaza University College, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nyeri on the topic: CORRELATION BETWEEN PSYCHO-SOCIAL SUPPORT AND LONELINESS AMONG OLDER ADULTS IN MATHIRA SUB-COUNTY, KENYA for the period ending : 14/October/2023.

License No: **NACOSTI/P/22/20881**

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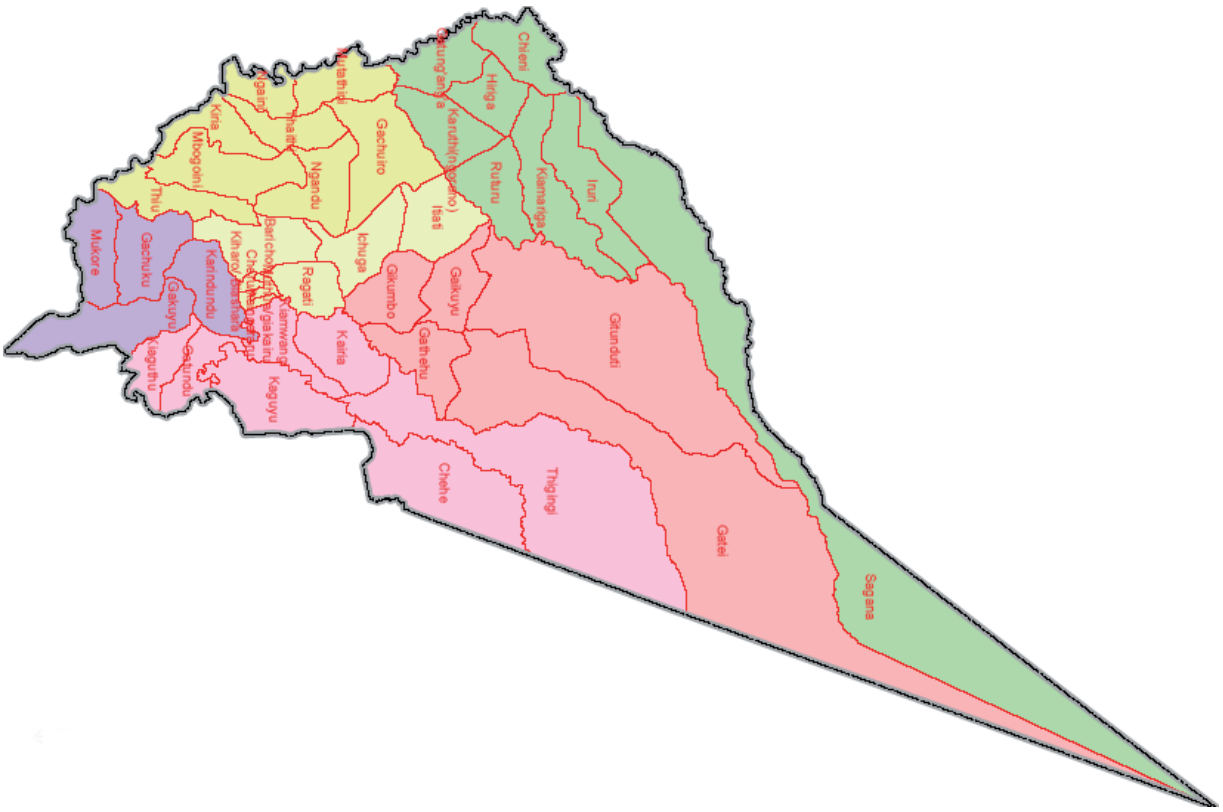
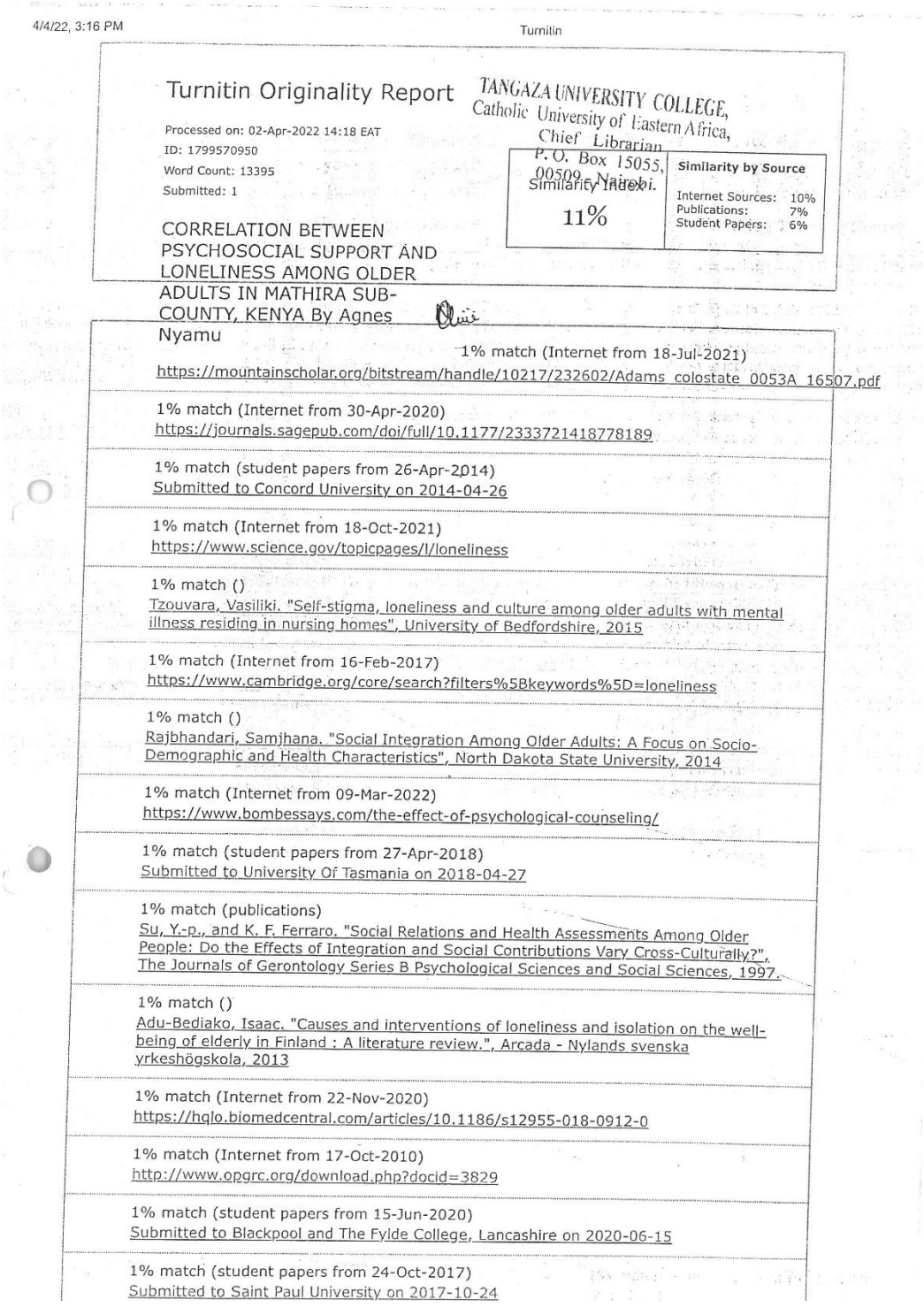
Appendix H: Map of Mathira West Sub-county, Nyeri, Kenya



Appendix I: Plagiarism Report



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