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FACTORS CONTRIBUTING TO MENTAL HEALTH PROBLEMS IN KAZAKHSTAN

– Literature review

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Mental health is a very relevant topic currently worldwide. Mental health problems are increasing globally, especially in developing or low-and middle income countries. Mental health problems have severe impact on families, careers, social and economic developments. Mental health problems have been seen peripheral problems in many Central Asian countries. Until very recently, mental health problems were not given much priority in Kazakhstan. Mental health is starting to get more attention in Kazakhstan lately. Understanding the factors that contribute to mental health problems could help in developing policies and programs to reduce mental health problems in the country.

The purpose of the study is to draw attention towards the mental health problems in Kazakhstan. The aim of the study is to examine the factors that contribute to the mental health problems in Kazakhstan. In order to find out and examine the factors, a descriptive literature review method was chosen as a suitable method for the study. The study sources data from scientific research articles, which are from reputable search databases. The research data was analyzed by inductive content analysis.

The results of the study identify various factors that contribute to mental health problems in Kazakhstan: socio-demographic and socio-economic characteristics, poverty, education, traditional belief systems, stigma and shame, nuclear test site and radiation, lack of services for mental health, lack of cooperation among health services, and migration. These findings are consistent with the research data used.

In conclusion, this study points out only the key factors that contribute to mental health problems, because of the limitations of the study. Given the importance of mental health, more in-depth studies on mental health problems in Kazakhstan are required to explore more factors and examine them more precisely and accurately.

KEYWORDS:

Mental health, mental health problems, mental disorders, Central Asia, Kazakhstan

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MIELENTERVEYSONGELMIIN VAIKUTTAVAT TEKIJÄT KAZAKSTANISSA

- Kirjallisuuskatsaus

Mielenterveys on tällä hetkellä erittäin tärkeä aihe maailmanlaajuisesti. Mielenterveysongelmat ovat lisääntyneet etenkin kehittyvissä tai matalan ja keskitulotason maissa. Mielenterveysongelmilla on vakavia vaikutuksia perheisiin, uraan sekä sosiaaliseen ja taloudelliseen kehitykseen. Mielenterveysongelmia on pidetty toisarvoisina ongelmina monissa Keski-Aasian maissa. Vielä äskettäin mielenterveysongelmia ei asetettu Kazakstanissa etusijalle. Vähitellen mielenterveys on kuitenkin alkanut saada enemmän huomiota Kazakstanissa. Mielenterveysongelmiin vaikuttavien tekijöiden ymmärtäminen voisi auttaa kehittämään politiikkaa ja ohjelmia mielenterveysongelmien vähentämiseksi maassa.

Tutkimuksen tarkoituksena on kiinnittää huomiota mielenterveysongelmiin Kazakstanissa. Tutkimuksen tavoitteena on tutkia Kazakstanin mielenterveysongelmiin vaikuttavia tekijöitä. Tutkimuksen menetelmäksi on valittu kuvaileva kirjallisuuskatsaus, jotta tekijöitä on voitu selvittää ja tutkia. Tutkimus lähtee tieteellisistä tutkimuksista, jotka ovat peräisin luotettavista hakutietokannoista. Tutkimustulokset on analysoitu induktiivisella sisällön analyysillä.

Tutkimuksen tulokset osoittavat erilaisia tekijöitä, jotka vaikuttavat mielenterveysongelmiin Kazakstanissa: niitä ovat esimerkiksi sosio-demografiset ja sosioekonomiset ominaisuudet, köyhyys, koulutus, perinteiset uskomusjärjestelmät, leimautuminen ja häpeä, ydinkokeet ja säteily, mielenterveyspalvelujen puute, terveyspalvelujen yhteistyön puute ja muuttoliike. Nämä havainnot ovat yhdenmukaisia käytettyjen tutkimustietojen kanssa.

Tutkimuksen rajoittuneisuuden vuoksi, se tuo esiin vain keskeisiä tekijöitä, jotka vaikuttavat mielenterveysongelmiin. Mielenterveyden tärkeyden vuoksi Kazakstanin mielenterveysongelmia on tutkittava perusteellisemmin, jotta voidaan löytää lisää tekijöitä ja tutkia niitä entistä tarkemmin.

ASIASANAT:

Mielenterveys, mielenterveysongelmat, mielenterveyshäiriöt, Keski-Aasia, Kazakstan

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LIST OF ABBREVIATIONS

Abbreviation	Explanation of abbreviation
CORI	Country of Origin Research and Information
GDP	Gross Domestic Product
IOM	International Organization for Migration
IWPR	Institute for War and Peace Reporting
LMICs	Low and Middle Income Countries
mSv	Millisievert
NCRP	National Council on Radiation Protection and Measurements
NGOs	Non-governmental Organizations
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WB	World Bank
WHO	World Health Organization
WPR	World Population Review

1 INTRODUCTION

Mental health is a very relevant topic currently throughout the whole world. According to the World Health Organization (WHO, 2014), mental health is: "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." From the definition, it is clear that mental health is an important part of human development. Positive mental health can improve quality of life, whereas poor mental health can lead to negative health outcomes (Chan, 2010).

Mental health problems are the growing major health concerns worldwide. Mental health problems can affect the way a person thinks, feels, behaves, and interacts with other people. There are several terminologies used to describe mental health problems. For example, mental illness is described as “maladaptive responses to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are incongruent with the local and cultural norms, and that interfere with the individual’s social, occupational, and/or physical functioning” (Townsend, 2015). Mental disorder is described by American Psychiatric Association (APA, 2013) as “a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning”. A mental health problem can develop into mental illness or mental disorder if they are not treated effectively or in time. So, all metal health problems should be treated in time.

Mental health problems have been seen peripheral problems in many Central Asian countries, such as Kazakhstan. However, mental health problems have severe impact on families, careers, social and economic developments. Mental health problems in Central Asia is a rather big topic to cover in a marginalized paper as a whole, as there are differences in cultures, economical statuses, and the patterns in mental health problems in the regions. Therefore, this paper focuses on the mental health problems in Kazakhstan, and tries to examine the factors that contribute to the mental health problems in Kazakhstan.

2 BACKGROUND

Kazakhstan is the largest country in Central Asia with rapidly developing economy with annual growth of 4% in 2017 (World Bank, 2017). GDP per capita increased from 2,056 USD in 2003 to 8,792 USD in 2017 (WB, 2017), and the country has transitioned from lower-middle-income to upper-middle-income status in less than two decades. Kazakhstan is a multiethnic state with a total population of 18.0 million (WB, 2017). The majority of the population is Kazakhs (63.1%) and the largest ethnic minority is Russians (23.7%). Majority of the people are Muslims (70.2%), and the second largest religious group is Christians (26.2%), mainly Russian Orthodox (WB, 2017).

Source: Nations Online

Picture 1: Map of Kazakhstan, and other Central Asian countries

In Kazakhstan, neuropsychiatric disorders were estimated to contribute 14% of the country's burden of disease (WHO, 2011). The total health care budget is inadequate to tackle the growing number of problems in health care, including mental health problems. The total expenditure on health is 3.88 percent of GDP (WHO, 2015), and expenditure in mental health is about three percent of the overall health care budgets (Petrea, 2012).

The most common mental health problems in the country are depression, anxiety, substance use disorder, and suicidal behavior (WHO, 2015). According to WHO (2018) approximately 4.4% of the Kazakh population struggles with depression. The attitudes toward the people suffering from mental health problems often perceived with apprehension, suspicion, and rejection in Kazakhstan. Even in modern day society, there is still widespread tendency to discriminate and stigmatize against people suffering with mental health problems. Mental health patients are often considered as aggressive and dangerous, which distance them from the society (Zhumabyeva, 2016). According to World Population Review (2019), Kazakhstan has the 7th the highest suicide rates in the world at around 22.5 suicides per 100 thousands. The main causes of suicides were related mental health problems.

The prevalence and burden of depression and anxiety disorders in Kazakhstan are shown in Table 1 below:

Table 1: Prevalence and burden of depression and anxiety disorders in Kazakhstan

	Prevalence*		Health Loss/ Disease Burden**	
	Total cases	% of population	Total Years Lived with Disability (YLD)	% of total YLD
Depressive Disorders	732 699	4.4%	128 283	7.9%
Anxiety disorders	549 157	3.3%	50 624	3.1%

**Source: Global Burden of Disease study, 2015;*

*** Source: WHO, Global Health Estimates, 2015*

United Nations Children's Fund UNICEF started school based suicide prevention program in 2012 as leading causes of suicides in adolescents and youths are related to mental health problems, such as depression and anxiety (UNICEF, 2014). The goal of the program was to ensure that adolescents and youths who are identified at high risk can be followed by school stuff and mental health care professionals.

Until very recently, mental health problems were not given much priority in Kazakhstan. Because of the ‘negative’ attitudes towards mental health problems, people suffering from the mental health problems either tried to deny that they have a problem or they tried to live with in somehow, until the problem becomes so severe that they cannot live a ‘normal’ life in a society (Zhumabyeva, 2016).

A supportive and caring approach towards the people and the family who are suffering from mental health problems may strengthen the sufferers’ understanding and believe that they can tackle the problem together. Health care professionals’ interpersonal communicative skills, sensitiveness, and compassion regarding the mental health problems may also ease the burden of the suffering families. (Wynaden, *et al.,* 2005.)

Mental health problems should be a huge health concern for Kazakhstan. There are no easy ways to solve or mitigate the problems. The first and most important step is the recognition of the problems by the government and authorities. And the next step should be policy development and resource allocation (Petrea, 2012).

Government policies and programs should include community based interventions. Special emphasis should be given on mental health, and mental health services should be easily accessible for all people. People living in poverty in remote rural areas, with less or no education are more vulnerable to mental health problems (Samy, *et al.,* 2015).

In addition, the cooperation between governmental and non-governmental organizations (NGOs) needs to improve, so that community level engagements are increased to formulate laws, legislations, plans, policies to tackle the mental health problems nationwide.

Mental health is starting to get more attention in Kazakhstan lately. Therefore, it is important to study mental health problems in Kazakhstan more extensively. Understanding the factors that contribute to mental health problems could help in developing policies and programs to reduce mental health problems in the country.

3 PURPOSE, AIM, AND RESEARCH QUESTIONS

The purpose of the study is to draw attention towards the mental health problems in Kazakhstan. The aim of the study is to examine the factors that contribute to the mental health problems in Kazakhstan.

Research question:

- What are the factors contributing to mental health problems in Kazakhstan?

4 RESEARCH METHODS

4.1 Literature review

In order to find out and examine the factors that contribute to the mental health problems in Kazakhstan, a literature review method was chosen as a suitable method for the study, as a literature review is an efficient and explicit method to assess, examine, and identify available scientific literatures related on a topic (Fink, A, 2010). According to Machi and McEvoy (2016), a literature review "presents a logically argued case founded on a comprehensive understanding of the current state of knowledge about a topic of study".

There are different types of literature reviews. This study paper is a descriptive literature review. A descriptive review approach has a well-defined, and a systematic procedure, such as, searching, filtering, and classifying processes which aim to answer specific research questions (Yang, and Tate, 2012).

4.2 Data collection

The study sources data from scientific research articles, which are from reputable search databases. Conducting the data search was done from the chosen electronic databases: Academic Search Elite (EBSCO), Cinahl (EBSCO), ScienceDirect (EBSCO), Emerald, and PubMed. The search words include: "mental health problems", "mental illnesses", "mental disorders", "psychiatric illness", "psychiatric disorders", "Central Asia", and Kazakhstan. Materials used for the study are relatively new, which are about 10 years old.

This study focuses on the key factors in a narrower sense, and will not address mental health problems of a specific age groups, genders, or ethnic groups. The inclusion and exclusion criteria for the study are presented below in Table 1.

Table 2: Inclusion and exclusion criteria for the study

Inclusion Criteria	Exclusion Criteria
Articles are about 10 years old, or published from 2008 to current	Articles more than 10 years old, or published before 2008
Articles in English	Articles in other languages
Original articles	Review articles
Mental health problems, including mental illnesses, mental disorders, psychiatric illness, psychiatric disorders	Other somatic (health related) illnesses
Mental health problems of the whole population of Kazakhstan	Mental health problems of a specific age groups, genders, ethnic groups

After setting up the filtering criteria, and inclusion and exclusion criteria for the literature search, 108 titles from Academic Search Elite (EBSCO), 16 titles from Cinahl (EBSCO), Seven (7) titles from ScienceDirect (EBSCO), 44 titles from Emerald, and 47 titles from PubMed were found, resulting in a total of 222 research articles.

After reading the titles of articles, 172 were excluded because they did not relate much to the research question, leaving 50 articles for the study. At this point, several articles were found in common from the databases used.

After reading through the abstracts of the 50 articles, 15 articles were excluded based on the abstracts. The final and the most important phase were to choose primary research articles that would address the research question of the study. After reading the full articles, 18 articles were chosen for the literature review.

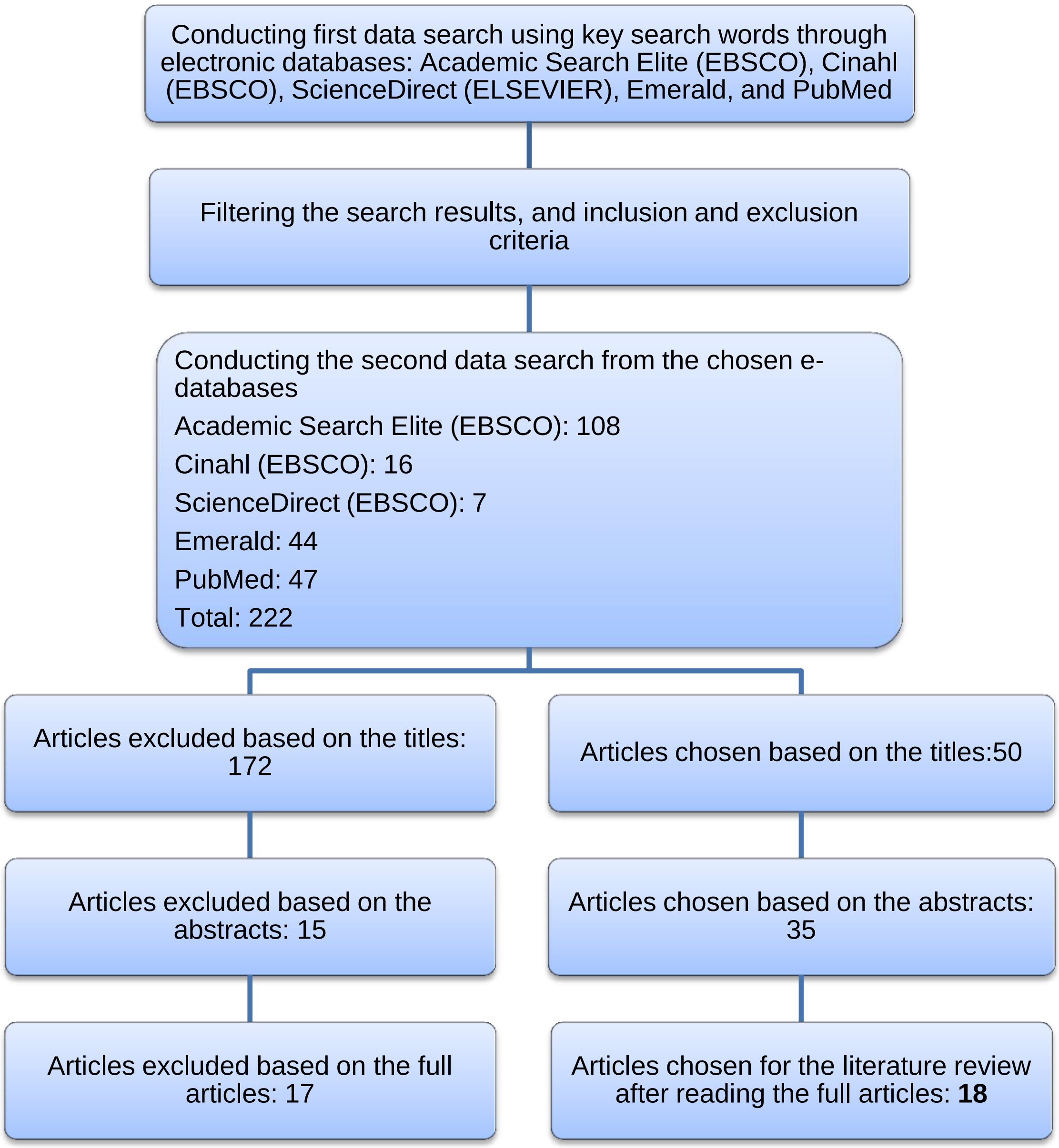

Figure 1: The process of literature search and literature selection for study

4.3 Data analysis

The research data was analyzed by content analysis to gather, manage, organize, and categorize useful information for the study. Krippendorff (2013) defines content analysis as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.”

Content analysis may be used to analyze either quantitative data or qualitative data. There are two different approaches: deductive content analysis, and inductive content analysis. A deductive approach can be used when the aim is to test an earlier theory in a different situation to compare categories at different time periods, whereas the inductive approach can be used in cases where there are no previous studies dealing with the phenomenon or when it is fragmented (Elo and Kyngäs, 2008).

Inductive content analysis includes open coding, creating categories, sub-categories and abstraction. Open coding means writing heading and texts to describe all aspects of contents. After open coding, categories are created and lists of category are grouped under higher order headings reducing the number of categories by collapsing the similar categories under same broader heading. Abstraction formulates a general description of the research topic through generating categories which continues as far as possible (Elo and Kyngäs, 2008).

For this study, inductive content analysis has been used. Research data were selected, gathered, and collected from scientific research articles. Previous theories and assumptions did not influence the outcomes. Preparation phase started by selecting appropriate key words guided by the aim and research question of the study. After the selection of key words, searches were made in five different reputable databases. Inclusion and exclusion criteria were set to filter the articles.

All the selected articles were read carefully several times to gain better understanding of the approaches used in them, and to get an overall picture of the studies, and not to miss any important information. All the information about mental health problems and factors associated with them were identified and listed. Analysis and organization of data started with an open coding, by highlighting relevant and interesting meaning units from the texts. Meaning units are condensed to facilitate next step; the coding process. The next steps were condensing, coding and abstraction of data to reduce the collected data into different subcategories. Subcategories were formed for similar contents. Finally, subcategories were linked together into a descriptive and explanatory main category. Similar outcomes were put on the same heading to reduce the number of main categories. Data analysis process is shown below in Figure 2:

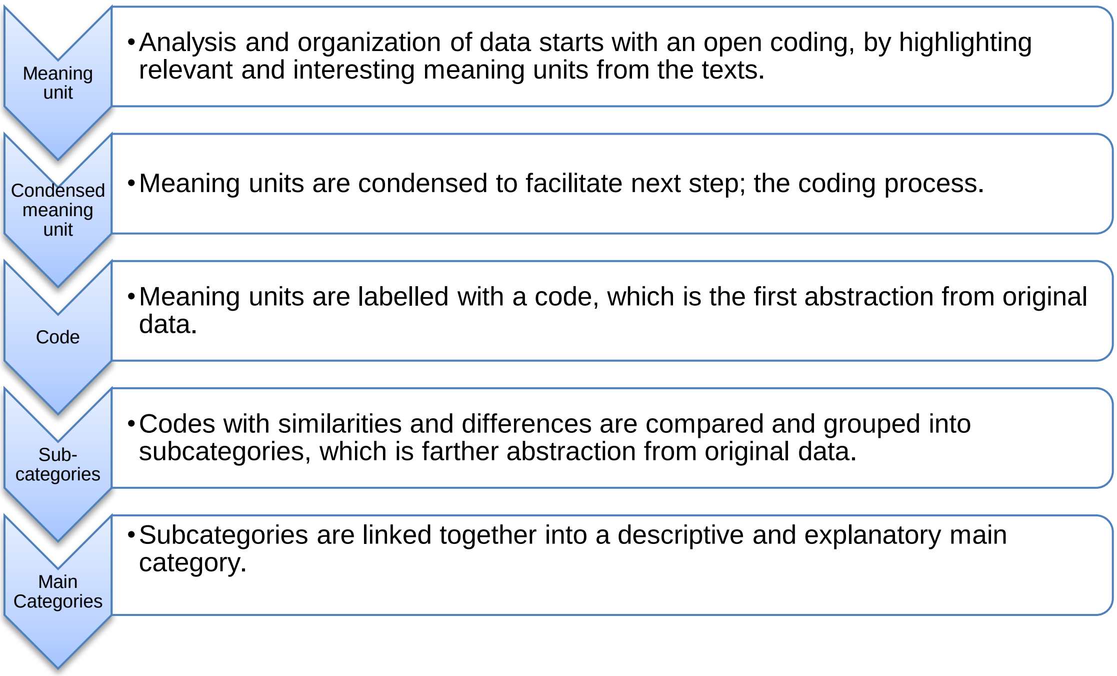

Figure 2: Data analysis process

The data of the study was analyzed by content analysis. An example of the content analysis of the study is shown in Table 3 to explain how the sub-categories and main categories were created:

Table 3: Example of content analysis of the study

Meaning units	Condensed meaning units	Sub-categories	Main categories
Older age groups showed higher levels of high psychological distress	Older age, higher psychological distress	Age	Socio-demographic characteristics
Women continue to bear the burden of higher psychological distress	Women, Higher psychological distress,	Gender	Socio-demographic characteristics
Higher burden among women may relate to women being more	Higher burden, single parents, elderly pensioners,	Gender, Poverty, social support	Socio-demographic characteristics

likely to live in poverty as single parents or elderly pensioners, loss of child care and maternity benefits and less income to offset higher costs for basic goods and perceived social exclusion	women, poverty, social exclusion		
There is the impact of sexual discrimination, and particularly domestic and sexual violence directed at women	Sexual discrimination, domestic violence, sexual violence, women	Gender	Socio-demographic characteristics
Men may be more prone to hostility, anger and substance abuse	Men, hostility, anger, substance use	Gender	Socio-demographic characteristics
Low education levels, personal support and household economic status highlights the persistence of a higher burden of psychological distress	Low education, personal support, economic status, psychological distress,	Education, Social support	Socio-demographic characteristics

5 RESULTS

5.1 Socio-demographic characteristics

Socio-economic characteristics which affect negatively on mental health are older age, being female, loneliness, functional limitations, primary or no education, household size etc.

Older population suffers from higher level of psychological distress, and mental disorders than the younger population or younger age groups (Roberts, *et al.* 2012; Ignatyev, *et al*. 2014). This trend is a reflection of higher level of older age mental health patients globally (WHO, 2014).

Women bear the higher psychological distress, particularity from anxiety disorders, and depressive disorders, compared with men (Roberts, *et al.* 2012), especially women without partner, or not being married (Roberts, *et al.* 2010, Ignatyev, *et al*. 2014). The most reasonable explanations for this could be that most women in Kazakhstan follow a more traditional role of taking care of the family and their children, living in poverty and social exclusion (UNDP, 2011), while men engage in different organizational community works, and activities (Goryakin, et al., 2013). Gender differences can be much stronger in lower socio-economic groups (Ignatyev, & Mundt, 2014). Moreover, sexual discrimination, sexual violence, and domestic violence are often directed at women (Roberts, *et al.* 2010). Men, on the other hand, are more prone to isolation and loneliness while away from home. There is strong association between depression symptoms and social isolation (Goryakin, et al., 2013). The effect of being lonely on mental health is higher in men than for women, especially in middle age working men and/or older men, and this may lead to the speculation that men are more prone to hostility, anger, and substance use (Roberts, *et al.* 2012).

The number of people with mental health problems reported is much higher in women than men (Roberts, *et al.* 2012). The explanation for this may be that men are less likely to report their mental health problems than women in a patriarchal society as in Kazakhstan, where men are seen as less ‘masculine’ if they discuss their feelings and emotions related to mental health (Roberts, *et al.* 2012).

5.2 Socio-economic Characteristics

Socio-economic characteristics, such as, income, poverty, employment, education, social inequality and social support are closely tied with mental health.

Unemployment and poor economic situation contributes to mental distress, and can lead to mental illness (Roberts, *et al.* 2012). Factors positively associated with good mental health are good financial situation, and number of working member in a household (Goryakin, *et al*., 2013). People with higher socio-economic status take advantages to improve their physical and mental health, while people with lower socio-economic status are left behind with more mental distress (Goryakin, *et al*., 2015). The relation between higher social support and lower level of mental distress was identified (Goryakin, *et al*., 2013).

Disadvantaged neighborhood is considered a strong independent predictor of mental disorders and substance use disorders (Ignatyev, & Mundt, 2014). The study shows that psychological distresses are associated in disadvantage areas of Kazakhstan, where people usually increase the use of substances with the increased mental distress, and do not seek treatment for common mental disorders or substance use disorders (Ignatyev, & Mundt, 2014). Socio-economic changes have impacted differently in rural and urban arears in Kazakhstan. Therefore, the prevalence of mental health outcomes is also different in areas, as lower socio-economic statuses are connected to poorer mental health (Roberts, *et al.* 2012). Psychological distress was found much higher in rural or village areas than the capital or urban areas (Stickley *et al.,* 2015).

5.3 Poverty

Poverty is a major factor for mental health problems. Higher rates of mental health problems occur in the low-and middle-income countries (LMICs) (Samy, *et al.,* 2015), where poverty is very common. Even though Kazakhstan has been growing economically over the past few years, it still belongs to low-and middle-income countries. Because of poverty, there is a lack of availability and accessibility of mental health care services and treatments in LMICs (Samy, *et al.,* 2015). There is significant gap between the number of individuals with mental health problems in need of mental health treatments and those who actually receive the treatment on a global scale (De Silva, *et al.* 2014). Some initiatives have been taken to reduce the treatment gap for mental health care recently, but the treatment gap still remains big in LMICs (WHO, 2008).

Several studies (Mundit *et al.* 2011; Roberts *et al*., 2010; Lund *et al*., 2010) have shown strong association of psychological distress and poverty, while some other (Ignatyev *et al.*, 2014) showed strong association of poverty and psychological distress. Poor people go through stressful life events which is risk factor for mental distress. So, an increase in poverty level would result in poorer mental health. Mental health problems, on the other hand, can also lead to poverty, as treatments of mental disorders are costly through specialized care. Nevertheless, there is a relation between poverty and mental health problems (Baxter, *et al,* 2013).

The severe consequences of the untreated mental health problems, which can originate from psychological distresses, can lead to premature mortality, poverty, homelessness, substance use, drug addiction, poor physical condition, suicide, etc. (Luitel, *et al.,* 2017). Less priority and emphasis are given to mental health cares and services in LMICs, like in Kazakhstan (Sharan, *et al*., 2009). In low-and middle-income countries, less than 20% people living with a common mental health problem, e.g. depression or anxiety disorder, have any access to any kind of mental health treatment or care (Minas, 2018).

In addition, data is often not available to evaluate the quality or the effectiveness of the treatments who received mental health care in LMICs (Samy, *et al.,* 2015). A systematic review on global epidemiology of mental disorders shows that there was lack of data reporting in the incidence and prevalence of mental health problems and mortality rate in the LMICs, especially in Central Asia (Baxter, *et al,* 2013).

5.4 Education

Education plays a big role determining the mental health problems. Most studies show that less educated people in low-and middle-income countries associate with higher rates of common mental health problems (Lund, *et all*., 2010). Educated people, on the other hand, are better informed and knowledgeable about the cause of mental illness.

They understand mental health problems, such as depression, schizophrenia, and try to find the genetic or hereditary link to them, while illiterate people hold more traditional beliefs (Wynaden, D. *et al*, 2005). Educated people are more likely to take advantage from trusting others, and less likely to suffer from mental health problems as a result of loneliness (Goryakin, *et al*., 2013). Thus, high education and good mental health complements each other, as their association with lifestyle choices. Those who lag behind in education, suffer more from mental health problems (Schwarz, 2018).

However, there is mixed evidence of educational background on mental health problems on a global scale (Cohen, & Mines, 2008). The study of Ignatyev, *et al*. (2014) shows, the risk of getting common mental health problems among different educational levels was insignificant. The effects of education on mental health can be associated with economic situation (Chazelle *et al.,* 2011).

5.5 Traditional belief systems

Mental health problems are often linked to the person being possessed by evil sprits by the traditional belief in central Asia. People with mental health problems are often treated by witch doctors or spiritual leaders, who relate mental health problems to spiritual causes (Wynaden, D. *et al*, 2005).

Traditional beliefs are also reported to have a ‘sociological base’. For example, if a child develops a mental health problem, then it’s woman’s fault, because the problem was passed down from the mother to the child. This belief is associated with the concept of ‘bad blood’ (Wynaden, D. *et al*, 2005).

Spiritual healings have a long history in Central Asia. Being the largest country in the region, Kazakhstan is no exception to this. During the Soviet period, attempts were made to modernize the Central Asia by treating spiritual healing harmful. However, traditional and spiritual healing was not abandoned, and healers continued to work secretly, and towards the end of Soviet Union, more openly. After the fall of Soviet Union, the multiplicity of healing methods has increased by complex social, economic, and political factors. The Kazakh government’s positive support for ‘folk’ medicine has contributed to the rehabilitation of spiritual healing. In addition, lack of public health care services also influenced the process of institutionalization of traditional and spiritual practices. (Penkala-Gawecka, 2013.)

Traditional Kazakh healings have very close connection with Islamic religion. Kazakh spiritual healing is practiced by shamans, mullahs, Sufis, whose supernatural powers enable them to contact between the supernatural spirit world and human world. They are known for their skills for curing mental health problems through exorcism. Often they recite verse from the holy Qur'an, prepare amulets, or have traditional utensils (e.g. knife, whip, rocks etc.) against harmful or evil spirits. (Penkala-Gawecka, 2013.)

There are similarities between In Kazakhstan, and its neighboring country Kyrgyzstan regarding mental health problems. A mental health problem is usually considered a 'spiritual emergence', and a person with mental health problem usually has to visit a number of traditional or spiritual healers before a mental health care professional takes care of the person, and by then, according to the health care professionals, most patients' psychiatric problems had already reached at the advanced stage. Lack of trust in mental health care services also plays a role turning to spiritual healers when a mental health problem occurs (Molchanova, *et al*. 2008). Spiritual or traditional healers share their worldview and belief system with the people with mental health problems, and they are more affordable and accessible to their patients than the mental health professionals (Nortje *et al*. 2016).

5.6 Shame and Stigma

Shame and stigma around mental health problems are very sensitive issues in Kazakhstan. This would mean people with mental health problems may not want to reveal their mental health experiences. Shame and stigma influence people with mental health problems not to seek help from the mental health care services. (Roberts, *et al.* 2010.)

Stigma is the most common explanation for refusing mental health treatments. The family try to keep it a secret and try to manage the problem by isolating the suffered individual from the community, because the suffered individual and the family would be labeled 'negatively' by their community (Wynaden, D. *et al*, 2005; Ignatyev, & Mundt, 2014).

People with mental health problems are kept away from the community, living in isolation, and the family would not seek treatment actively hoping that the problem would go away on its own The family would not seek help from the mental health services voluntarily. Widespread neglect of mental health problems is still very common. Treatment or help is only sought when the problem cannot be managed within the family anymore. By that time, the illness usually advances to severe stage. (Wynaden, D. *et al*, 2005.)

Family reputation is important especially when a problem as viewed as a hereditary cause. If a child succeeds, it gives good impressions for the family reputation. If a child, on the other, develops mental health problems, it brings disgrace for the family's reputation. (Wynaden, D. *et al*, 2005.)

5.7 Nuclear Test Site and Radiation

Depression has been found the most prevalent mental health problem in the people who have been exposed to unfavorable environmental factors, such as radiation (Pivina, *et al*., 2017). Long-term mental health consequences of Chernobyl, and the Three Mile Island Nuclear Plant accidents are the largest public health problems caused by the accidents (NCRP, 2013). In Semipalatinsk Nuclear Test Site, east Kazakhstan, more than 450 nuclear tests have taken place during the period of 1949 and 1989 (Pivina, *et al*., 2017).

Source: National Council on Radiation Protection and Measurements (NCRP), 2013

Picture 2: Semipalatinsk Nuclear Test Site, Kazakhstan, 1949-1962

The high prevalence of mental health problems, including mental disorder, neurotic disorders, neurasthenia, anxiety, adjustment disorders, etc. were found among people who were exposed to radiation from the Semipalatinsk Nuclear Test Site (Moldagaliyev, *et al.,* 2014). People who were born between 1965 and 1999 in Abay region, near the Semipalatinsk Nuclear Test Site, and exposed to average radiation dose of 466 mSv, depression was found more common in their offspring compared to offspring of parents from other region, and suicide thoughts among depressed people were also found higher (Pivina, *et al*., 2017).

Awareness needs to build among the population discussing openly the psychological effects of radiation exposer, and appropriate measures and strategies should be taken into consideration when rehabilitation programs are developed (Moldagaliyev, *et al.,* 2014; Pivina, *et al*., 2017).

5.8 Lack of services for mental health

According to Country of Origin Research and Information (CORI, 2014), WHO Mental Health Atlas (2011) stated that the majority of the primary health care stuff in Kazakhstan had “not received official in-service training on mental health within the last five years”, and they are not permitted to prescribe psychotherapeutic drugs. Primary health care nurses were also not authorized to “independently diagnose and treat mental health disorders”. Official information related to mental health problems were not found in most health care services (WHO, 2011).

People with mental health problems are referred to specialized services. Mental health services are centralized in Kazakhstan, like in most Central Asian countries, and most services are limited to hospitalized treatment of schizophrenia and severe organic mental disorders (Mundt, *et al*. 2011). Mental health services are mostly institutionalized in Kazakhstan which includes mental hospitals, and diagnoses and treatment of mental health problems are not provided by the primary health care services (WHO, 2011). Psychotherapeutic services are also scarce and lacking. From 2008 to 2009, the number of publicly employed psychotherapists decreased from 17.% to 14.5 in Almaty. There were 0.4 psychotherapists per 100,000 inhabitants in 2008 (Ignatyev, *et al*. 2014).

Lack of services for mental health could also explain the link of mental health problems and traditional or spiritual treatments, as traditional treatments are more accessible and affordable. Mental health services are mostly used by the patients with severe mental health disorders usually with psychotic symptoms. People with depressive or anxiety symptoms are not referred to any mental health clinic or they do not seek any service (Terloyeva *et al*., 2018).

5.9 Lack of cooperation

There is a lack of cooperation among health care professionals, community spiritual or religious leaders, and the family members. Community leaders and family members should be well informed about the mental health problems by the health care professionals. Information should be available and accessible through leaflets, seminars, meetings etc. to the community. At the same time, the health care professionals should also understand the impact of mental health problems on the families. (Wynaden, *et al*, 2005.)

A reform of mental health care into primary health care can facilitate the current demand of the specialist services. However, introducing the mental health care services in primary health care is very challenging, because of the lack of skilled health care professionals, and overall health care budgets (Petrea, 2012). The poor information or data system between the specialized and local health professionals, enable people with mental health problems to hide their problems from the local health care professionals.

5.10 Migration

Kazakhstan's economy has been growing fast over the last two decade, making the country a host for skilled migrant workers from Kyrgyzstan, Tajikistan and Uzbekistan (IOM, 2018). In 2013, Kazakhstan was hosting over three million migrants from the neighboring countries representing about 19,5% of the country's population (UN, 2013). While the labor migrants come to the county for employment, and better opportunities, they often leave their families in their home countries providing financial support while away (Marat, 2009).

Labor migration may solve economic crisis for many, but being away from home and families, social isolation, living in fear of immigration police due to illegal work status, work uncertainty, discrimination or change in social status, may affect labor migrants' emotional well-being, and particularly at risk of mental health problems, e.g. depression, substance abuse (Ismayilova, *et al*. 2015).

According to health care professionals, there is an increase of working men who seek mental health services in Almaty, a prime destination for migrants (IWPR, 2016). Six percent of the migrant worker have reported clinical depression in Kazakhstan (Ismayilova, *et al*. 2015), which higher is than non-migrants or the country's overall depression rate of 4.4% (WHO, 2015).

Factors contributing to mental health problems in Kazakhstan are shown in Figure 3 below:

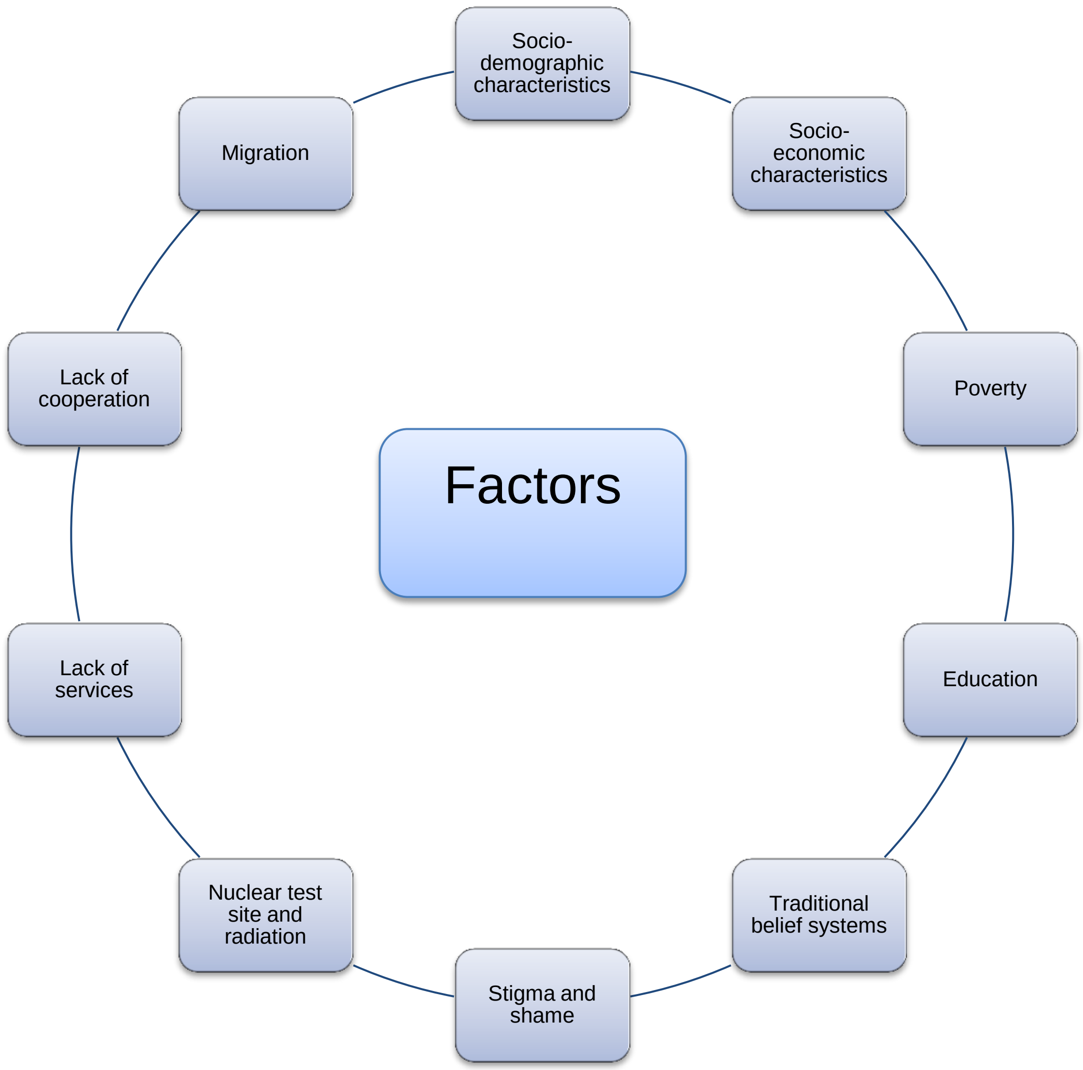

Figure 3: Factors contributing to mental health problems in Kazakhstan

6 DISCUSSION

6.1 Findings from the results

Mental health problems are increasing worldwide (WHO, 2014), and the importance of addressing the factors that contribute to the mental health problems are increasingly recognized, particularly in low-and middle income countries (Roberts, *et al.* 2010).

The incidence and prevalence of mental health problems are rising worldwide, especially in the Central Asian countries, such as, Kazakhstan. Various factors were identified that contribute to mental health problems in Kazakhstan: socio-demographic and socio-economic characteristics, poverty, education, traditional belief systems, stigma and shame, nuclear test site and radiation, lack of services for mental health, lack of cooperation among health services, and migration.

Of the socio-demographic factors, the prevalence of mental health problems was higher among women than men (Roberts, et al. 2010). Older aged people with low level of education or no education were associated with more psychological distresses which lead to mental health problems. The study shows socio-economic factors can affect positively or negatively on mental health. Higher socio-economic status is associated with good mental health (Goryakin, et al., 2013). Community based outpatient mental health services should be available and accessible for all people especially women, older people, and people who are economically disadvantaged.

The traditional beliefs about the causes of mental health problems held by many illiterate people, especially in the rural areas make women vulnerable to mental health problems (Wynaden, D. et al, 2005). Community education programs should be arranged to aware people about the causes of mental health problems and their treatments. As the study shows, many people still hold traditional belief and stigma towards mental health problems; the programs should address those issues.

Mental health problems are seen ‘negatively’ in Kazakh’s society. Shame and stigma are the most common explanations for refusing mental health treatments. Therefore, people with mental health problems would seek within their own family or community rather than seeking help from the primary or mental health care services. (Roberts, *et al.* 2010). People with mental health problems would often seek help from the spiritual healers who relate mental health problems to spiritual causes (Wynaden, D. et al, 2005).

There are some evidence that suggest spiritual healers can provide an effective psychosocial intervention to relieve mild mental distress and can improve mild symptoms in common mental problems, such as anxiety and depression. However, there is little evidence that suggests that spiritual healers can change the course of severe mental health problems, such as schizophrenia, bipolar disorder and psychotic disorders Mental health treatment plans and programs, and health care professionals need to cooperate and work together with the traditional community leaders, and spiritual or religious leaders to gain access to the local communities. (Nortje *et al*. 2016.)

6.2 Ethical considerations

Ethical considerations are very important in research. When conducting a research, there are several ethical issues which must be considered, such as respect human dignity, keeping the participants' secrecy and privacy, confidentiality, and informed consent from the participants.

Because of ethical considerations' importance, different organizations or agencies have adopted ethical codes, guidelines or policies. This research paper follows the guidelines of the 'Finnish Advisory Board on Research Integrity' (2012). Honesty, objectivity, and respect for intellectual property have been maintained properly throughout the paper by evaluating sources' relevance to the aim, and purpose of the paper. All the sources and materials used for the paper are credited and referenced properly. Thus, principles of good ethical considerations have been taken into account while writing this paper.

6.3 Limitations of the study

The study has a number of limitations. First, there are limited sources available on the mental health status of Kazakh population. There are more sources available on the central Asian countries as a whole. While the study found that there are some similarities among mental health problems and factors behind them across the region, it is recommended that each country has its own data to support its validity and reliability.

Second, as mentioned above, the study focuses on the whole Kazakh populations as a whole, and does not separate different age groups, ethnic groups, urban and rural populations, or geographical locations of the country. Additional studies of these elements separately would give much precise picture of the mental health problems of the groups or location, and factors associated with them.

Third, the researcher is from a different background, and did not speak Kazakh or Russian, the official languages of Kazakhstan. Therefore, the sources were searched only in English. The availability of the sources in English, especially from the recently published years was scarce.

While limitations were recognized, the data analysis and the study were done in a non-biased way, with a neutral point of view. Therefore, the findings of the study add to the available literature on the factors contributing to the mental health problems in Kazakhstan.

7 CONCLUSION

Mental health problems are increasing worldwide, especially in developing or low-and middle income countries. Therefore, mental health problems should be a huge health concern for Kazakhstan. The study contributes to the existence knowledge of mental health problems in Kazakhstan by systematically examining and presenting the factors that contribute to mental health problems. These findings are consistent with the research data used. There are no easy ways to solve or mitigate the problems. The first and most important step is the recognition of the problems by the government and authorities. In addition, cooperation between governmental and non-governmental organizations (NGOs) needs to improve, so that community level engagement is increased to formulate laws, legislations, and policies to tackle the mental health problems nationwide.

In conclusion, this study points out only the key factors that contribute to mental health problems, because of the limitations of the study. Given the importance of mental health, more in-depth studies on mental health problems in Kazakhstan are required to explore more factors and examine them more precisely and accurately.

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