

FAMILY FUNCTIONING AND LONELINESS AMONG COLLEGE STUDENTS  
IN ONLINE LEARNING DURING THE COVID-19 PANDEMIC: SUBJECTIVE  
VITALITY AS MEDIATOR

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## **DEDICATION**

This thesis is dedicated to my father, who taught me that the best kind of knowledge that one can have is learned for its own sake. It is also dedicated to my mother, who taught me that even the herculean task can be accomplished if it is done one step at a time.

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## ABSTRACT

The global pandemic of COVID-19 prompted the enforcement of online education among college students in mainland China. This way of delivering courses cut students from enough socialization and forced them to stay at home for months, which involved them in increasing levels of loneliness. Some theories emphasize the role of family functioning in people's loneliness, but the association between family functioning and loneliness and the mediating mechanism underlying this relation have not been extensively researched. This study aims to examine the relationship between family functioning and loneliness and, if the relation exists, whether subjective vitality mediates in this association. A total of 385 Chinese college students completed measures of adaptability and cohesion, loneliness, and subjective vitality. The results showed that family functioning had a significant and negative influence on the levels of loneliness of the college students and that this relationship was partially mediated by the role of subjective vitality. The current study contributes to a better understanding of the relationship between family functioning, loneliness and subjective vitality, especially during tough times such as the global COVID-19 epidemic.

## ABSTRAK

Pandemik COVID-19 telah mendorong pelaksanaan aktiviti pembelajaran dan pengajaran secara atas talian di kalangan pelajar universiti di seluruh China. Kaedah penyampaian kursus tersebut mengurangkan pelajar daripada bersosial dan pelajar terpaksa duduk di rumah berbulan-bulan. Hal ini menyebabkan Mereka berada dalam kesepian yang semakin bertambah. Beberapa teori telah menekankan fungsi keluarga dalam kesepian individu, tetapi hubungan antara fungsi keluarga dan kesepian serta mekanisme perantaraan yang mendasari hubungan tersebut belum banyak dikaji. Kajian ini bertujuan untuk mengkaji hubungan antara fungsi keluarga dan kesepian serta jika hubungan tersebut wujud, apakah daya hidup subjektif yang menjadi perantara dalam hubungan tersebut. Seramai 385 orang pelajar universiti telah menyiapkan soal selidik tentang daya penyesuaian diri dan kesepakatan, kesepian dan daya hidup subjektif. Hasil kajian menunjukkan bahawa fungsi keluarga mempunyai pengaruh yang signifikan dan negatif terhadap tahap kesepian pelajar universiti. Daya hidup subjektif menjadi mediator yang terhad dalam hubungan antara fungsi keluarga dan tahap kesunyian pelajar universiti. Kajian semasa menyumbang pemahaman yang lebih baik mengenai hubungan antara fungsi keluarga, kesepian dan daya hidup subjektif, terutama pada masa kesukaran seperti wabak penularan COVID-19.

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## **LIST OF ABBREVIATIONS**

COVID	-	Coronavirus
FACES	-	The Family Adaptability and Cohesion Evaluation Scale
SVS	-	Subjective Vitality Scale
UCLA	-	University of California, Los Angeles
UTM	-	Universiti Teknologi Malaysia

## LIST OF SYMBOLS

IV	-	Independent Variable
DV	-	Dependent Variable
$F$	-	Value on the F Distribution
$p$	-	Probability
$R^2$	-	Coefficient of Determination
Adj $R^2$	-	Adjusted R-Squared
$r$	-	Pearson's Correlation Coefficient

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

COVID-19 as a global pandemic which has been spreading in China and worldwide since the end month of 2019. In order to control and prevent the transmission of this epidemic, higher education postponed face-to-face education then carried out online courses instead. Due to the change of class setting, college students who lack enough social interactions are experiencing a higher risk of psychosocial and mental health problems. Students perform their daily learning activities mainly at home without the quality and quantity of social relationships, which may cause them to experience high levels of loneliness.

Family takes a critical duty on students' development of psychological and mental well-being, especially during the pandemic. Previous studies reported that family functioning has a relationship with an individual's loneliness (Pan, Yang, Han, & Qi, 2020; Xin Ziqiang, 2003; Yang, 2020). Poor family functioning can in some extent be related to extreme loneliness.

Subjective vitality as an inner source of drive, which refers to a conscious perception of feeling alive and energetic. From the self-determination theory perspective, the subjective vitality can receive support from the family environment to facilitate an individual's motivation to perform activities. Subjective vitality is conducive to people who have levels of loneliness and encourage them to self-regulate to achieve purposive goals.

There are limited studies on the exploration of subjective vitality as a mediator in the association of family functioning and loneliness. Therefore, this research aims

to understand whether subjective vitality mediates the relationship of family functioning and loneliness.

## **1.2 Background of the Study**

Since the first case was identified at the end of 2019 from Wuhan, China, the coronavirus disease 2019 (COVID-19) epidemic has been spreading in mainland China and other parts of the world. According to the World Health Organization (WHO), as of 23 January 2021, there have been 96,877,399 confirmed cases of COVID-19, including 2,098, 879 deaths (WHO, 2021). China has taken effective practices to contain the transmission of this epidemic and has steadily reached a stable era of disease prevention and control. During the prevention and control of its transmission, higher education in China carried out the implementation of online education actively responding to the guidelines issued by the Ministry of Education (Chen et al., 2020). However, this epidemic not only caused physical infection on a large scale of people but also threatened the wellness of psychosocial and mental health.

Due to the postponement of face-to-face education, college sessions began online-classes instead. Students have to stay at home without enough social relationships which may cause them to experience a sense of loneliness. In Turkey, there is a Photovoice qualitative research done by Tanhan (2020) among 127 college students which reported that 26 percent of them being alone and/or not being able to interact with other people as the primary factor brings trouble in their life.

Loneliness is considered to be harmful for both physical and psychological well-being. It is associated suicidal ideation and actions, suicidality, substance abuse, and psychological conditions such as depression and anxiety (Hawkey & Cacioppo, 2010); moreover, it is a risking factor for burnout in academic environments (Lim, Rodebaugh, Zyphur, & Gleeson, 2016; Stoliker & Lafreniere, 2015). From this study we can understand how loneliness became one of the critical distress problems among young adults especially during the epidemic.



Family functioning plays an irreplaceable role in the healthy development of human beings. It is an important place for young adults to grow and socialize, and is also related to the experience of loneliness (Yu, Zhang, & Yan, 2005). According to Olson (2000), family cohesion is related with an individual's interpersonal well-being and satisfaction. By mediating the needs of the broader social community through the socialization process, the adaptability of family facilitates individual's social change as well. If the family functioning is within unbalanced systems, which can be strongly related with family members' maladjusted problems. The previous studies documented that family functioning predicts an individual's psychological and mental state (Shi, Wang, & Zou, 2017; Xin Ziqiang, 2003; Yu et al., 2005).

Subjective vitality refers to an individual's conscious feeling of being alive and energetic. Individuals who have subjective vitality will have more energy to perform activities and self-regulate for purposive actions (R. M. Ryan & Deci, 2000). College students with high levels of loneliness can negatively impact their emotional state while the subjective vitality can be conducive to their positive adjustment. A considerable body of work has produced findings to support that subjective vitality positively linked with individuals' psychological well-being, life satisfaction, and self-efficacy (R. M. Ryan & Frederick, 1997; Satici, 2020; Uysal, Satici, Satici, & Akin, 2014). Subjective vitality also as a significant indicator of personal well-being within the context of family. By means of receiving social support from family functioning, subjective vitality can better facilitate an individual's feeling of aliveness and energy.

All in all, ill-performed family functioning can be related to an individual's high levels of loneliness and also not helpful for cultivating a sense of subjective vitality. In addition, with the facilitating role of subjective vitality, an individual's loneliness can be adjusted to some extent which is conducive to their well-being of psychological and mental health. The previous studies emphasize the role of family in people's sense of loneliness, but the association between family functioning and loneliness and the mediating role of subjective vitality have not been extensively researched, especially during COVID-19 epidemic. Therefore, this research aims to explore whether the subjective vitality mediates the association of family functioning

and loneliness. The current study contributes to a better understanding of the college students' loneliness in this adverse experience.

### **1.3 Problem Statement**

Coronavirus disease 2019 (COVID-2019) began during the Chinese Spring Festival, which became a severe public health crisis that threatened China and all over the world. In such an emergency situation, China has taken many special measures to control and prevent the epidemic transmission. Under the call of the national government, 'Suspending Classes without Stopping Learning', universities closed their campuses and shifted e-learning mode (Yang, 2020). Millions of college students were forced by the Ministry of Education to stay safe at home continuing their e-learning courses. Due to the request of online education to prevent the virus transmission, college students access their online classes and interact synchronously with lectures and peers at home.

However, the process of learning not only requests the sharing of knowledge, but also the emotional interactions between lecturers and students. The teaching and learning interactions processing on the internet platform, teachers as an educational resource and facilitator who actually alienated students. Students should perform their learning activities at home and interact with family members most instead of classmates. While negative family functioning may have had significant emotional and psychological consequences on young adults, including social alienation and loneliness, and resulting from the disturbance in their daily activities and social interactions with peers.

Firstly, the important role of the family in young adults' loneliness during this special epidemic should be discussed. Stay at home without enough social connections, students' mental health and psychological wellbeing significantly related to the family climate. In this way, it is hard for the beginners who start online learning for not long to get accustomed to this situation. When students' emotional needs couldn't be fulfilled, they would feel an extreme level of loneliness.

Further, the low level of cohesion and communication among family members also strongly related to an individual's sense of loneliness. As for the special epidemic situation, family becomes the place where students perform their interaction activities mostly than ever. The unsatisfying family functioning strongly correlated with an individual's loneliness (Xin Ziqiang, 2003).

Subsequently, a self-adaptation power originates from an individual's inner body, subjective vitality, which refers to a conscious perception of feeling alive and energetic can help them perform activities (R. M. Ryan & Frederick, 1997). Within the context of family functioning, an individual receives support from family and can facilitate the cultivation of subjective vitality. With the driving force of subjective vitality, students who experience a sense of loneliness can be alleviated much.

All in all, with the background of COVID-19 online education policy, college students were facing high risk of loneliness within the context of family. The mediating role of subjective vitality in the association of loneliness and family functioning can also be extensively explored. The current studies focus more on the relationship between family and loneliness, but the mediator of subjective vitality has not been intensively discussed, especially in this epidemic situation.

#### **1.4 Research Objectives**

The objectives of the research are:

- (a) Is there a relationship between family functioning and students' loneliness?
- (b) Is there a relationship between family functioning and students' subjective vitality?
- (c) Is there a relationship between subjective vitality and students' loneliness?

- (d) Is subjective vitality mediating the association of family functioning and loneliness?

## **1.5 Research Questions**

The research questions are listed as follows:

- a) Is there a relationship between family functioning and students' loneliness?
- b) Is there a relationship between family functioning and students' subjective vitality?
- c) Is there a relationship between subjective vitality and students' loneliness?
- d) Is subjective vitality mediating the association of family functioning and loneliness?

## **1.6 Research Hypothesis**

A hypothesis is raised in the process of determining whether the informed guess or prediction is supported by the results of a research project before the study is carried out (Jackson, 2015). The following null hypothesis were tested in this study at the 0.05 alpha level of significance.

H01: There is no relationship between family functioning and loneliness.

H02: There is no relationship between family functioning and subjective vitality.

H03: There is no relationship between subjective vitality and loneliness.

H04: Subjective vitality does not mediate the association between family functioning and loneliness.

## **1.7 Significance of the Study**

This research focused on the college students' sense of loneliness related with family functioning and mediated by the subjective vitality during the pandemic online education period. This loneliness refers to students' emotional need that couldn't be fulfilled when they lack enough social connection at home. This loneliness can be negatively related with the family functioning but can also be somehow alleviated by the power of subjective vitality. Therefore, it was obviously relevant to explore the subjective vitality as a mediator in the association of students' loneliness and family functioning to better understand their mental health, particularly in this adverse epidemic.

The result of this research will contribute to the body of knowledge associated with the correlation of family functioning and college students' loneliness mediated by the role of subjective vitality, especially in the background of COVID-19 epidemic. This study will also create awareness to assist future researchers to conduct further study into young adults' mental health.

## **1.8 Theoretical Framework**

For the purpose of this paper, the researcher adopted the Model of Loneliness developed by de Jong-Gierveld (1987), which incorporates characteristics of the social network, background variables, personality characteristics, and evaluative aspects. But in this research, the researcher focuses on the two relative aspects, the characteristics of the social network and subjective evaluation of the social network. The most noticeable aspect of the Model of Loneliness is that its highlighting on cognitive processes that mediate between characteristics of the social network and experience of loneliness. Perlman and Peplau (1981) note that lonely individuals feel senses of

discrepancy between desired and achieved social relations while this certain discrepancy does not lead directly to loneliness. The cognitive process plays a central role in modifying the loneliness experience.

According to the Loneliness Model, during the process the evaluation of the social network suggests a relation between descriptive characteristics of social network and loneliness. The aspect of descriptive characteristics of social networks refers to the number and depth of social relationships, which can be obtained from the presence or absence of mutual, intimate relationships and the absence or presence of contacts with family members, friends and acquaintances (de Jong-Gierveld, 1987). Stated from de Jong Gierveld, Van Tilburg, and Dykstra (2006) that associations between environmental variables and loneliness are individuals exposed. Further, some studies documented that the expectations for social interaction are tied with the experiences of loneliness (Burholt & Scharf, 2014; Drennan et al., 2008; Wang et al., 2011). In order to lower the levels of loneliness, a person should not have only one relationship. For example, individuals who have at least one social connection among family, friends.

In addition, the aspect of subjective evaluation of the social network describes a mediating role between the characteristics of the social network and the levels of loneliness experiences. This subjective evaluation is related to situation factors. One of them is the social isolation of individuals which in turn can lead to loneliness. The other one is the transition of the environment. For example, college students have to accept their learning environment changed into their own home, peers interacting most changed into family members, and lecturers as well delivering knowledge through the internet. All of them can be related to an individual's intensity of loneliness.

Within this theoretical framework, the researcher hypothesized that loneliness as a subjective personal distress arises from a mismatch between expected and actual social connections which is not directly related to situational factors. The emphasis of cognitive processing approach provides evidence to support the importance of personal perceptions and interpretations of the social network of relationships, which

underpinning the present conceptualized correlation of family functioning and loneliness mediated by subjective vitality.

In sum, the model of loneliness formed the framework to present the relationship among characteristics of social network, subjective evaluation of the social network and the intensity of loneliness. It is applied in this research is the association of family functioning, loneliness and the mediator of subjective vitality.

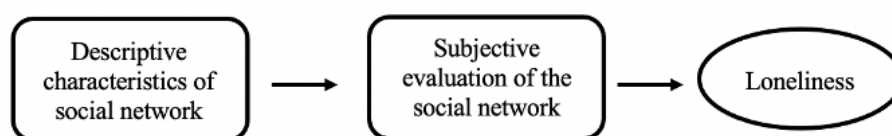


Figure 1. 1 Theoretical framework

## 1.9 Conceptual Framework

The process of designing a conceptual framework started with deciding the topic of the research study. Then, the researcher should search for and read the previous literature based on the topic to identify the important variables. From the documented studies, the researcher is able to identify the research gap and subsequently, developed the conceptual framework.

According to Jabareen (2009), the conceptual framework is explained as a network, or a plane, of interlinked concepts that together provide a comprehensive understanding of phenomenon or phenomena. Simply put, the framework acted as the guidelines in doing the research. It shows how each variable was related to one another.

As for this current study, during the epidemic period, college students are forced to continue distance learning at home so the levels of loneliness occur when

their expectation cannot live up to the quality or quantity of social interactions. Good family functioning provides intimate relationships and open communication for family members, if not, it can be related to students' sense of loneliness. In addition, according to the loneliness model, the research hypothesized that subjective vitality can be a source of self-originated drive to give subjective evaluation regarding an individual's current intensity of loneliness, which also has strong association with the current situation such as family functioning.

Therefore, with the findings provided and objectives perceived, the researcher can propose a conceptual framework built as follows:

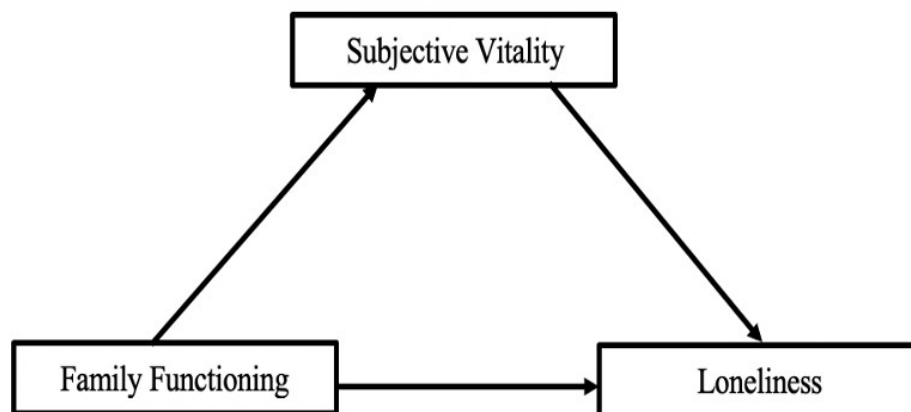


Figure 1. 2 Conceptual framework

### 1.10 Limitations of Research

There are several limitations beyond the control of the researcher in this study. The first one is the limitation of self-report questionnaires. The self-report questionnaire format generally consists of Likert-style responses to items which are responded by respondents themselves without the interference of researchers. In this way, there were some potential validity problems associated with it ("Self-Report Questionnaires,"). While responding to the listed questions, respondents may possibly



not answer truthful, accurate and honest answers because bias emerges on purpose or unconsciously. They may choose answers with socially desirable tendencies which might occur when respondents feel uncomfortable to provide answers showing they are unfavourable people ("Social Desirability Bias," 2010).

As for this research, use a cross-sectional study to examine the association among variables, there are limitations constrained here. The use of cross-sectional research only studies a single moment in time and draws a sample from a specified population. If the researcher plans to measure the actual situation of the population, the time-consuming and economic cost should be expensive.

### **1.11 Definitions of Terms**

To clarify the keywords of the present research, the following definitions of terms should be given as follows.

**Family functioning:** Family functioning refers to the social and structural properties of the global family environment. It includes interactions and relationships within the family, especially for the levels of conflict and cohesion, adaptability, organization, and quality of communication (Lewandowski, Palermo, Stinson, Handley, & Chambers, 2010).

In this study, family functioning refers to the extent where college students receive the quantity and quality of social relationships, which includes the cohesion and communication aspects among family members.

**Loneliness:** Loneliness refers to the distress that occurs when an individual's social relationship is perceived to be less in quantity or in quality cannot live up to the expectation.

In this study, loneliness can emerge when college students could not get enough social and emotional connections when they attend e-learning classes for a long time at home, especially in COVID-19 pandemic (Hawkley & Cacioppo, 2010).

**Subjective vitality:** Subjective vitality can be explained as a positive feeling of alive and energy.

In this study, subjective vitality as a mediator of family functioning and loneliness, which can be a subjective evaluation affected by the situational factors, such as family, and has alleviation on college students' intensity of loneliness.

## **1.12 Summary**

In this chapter, within the background of COVID-19 epidemic, the researcher discussed the prevalence of loneliness among college students when they have to take online classes with the deficiency of quality and quantity of social connections at home. Loneliness can be harmful for people's mental health and psychological wellness, which can also negatively affect students' academic performance. So, the problem of feeling loneliness within the context of family becomes the researcher's focus in study.

Moreover, the association between family and loneliness can be intermediated by subjective vitality, which as a subjective perception of college students can provide a positive drive to decrease the levels of loneliness.

Therefore, this current study aimed to:

- (a) Defining the relationship of family functioning and students' loneliness.
- (b) Defining the relationship of family functioning and students' subjective vitality.

- (c) Defining the relationship of subjective vitality and students' loneliness.
- (d) Identifying whether subjective vitality mediates the association of family functioning and loneliness.

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