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HEALTH RISK BEHAVIORS AND PERCEIVED LONELINESS AMONG UNIVERSITY STUDENTS IN KIRKUK/IRAQ

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**HEALTH RISK BEHAVIORS AND PERCEIVED LONELINESS
AMONG UNIVERSITY STUDENTS IN KIRKUK/IRAQ**

BY

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ETHICS STATEMENT

The thesis entitled “Health risk behaviors and perceived loneliness among university students in Kirkuk/Iraq” which was prepared and presented as a thesis, was written by me and in accordance with the scientific, academic rules and code of ethical conducts. The idea/hypothesis of my thesis solely belongs to my advisor and me. I conducted the study pertaining to the thesis and therefore, all of the used sentences and interpretations within the study belong to me.

I declare that the aforementioned issues are correct.

Signature

2024

Khalaf Mhameed Tawfeeq TAWFEEQ

SUMMARY

HEALTH RISK BEHAVIORS AND PERCEIVED LONELINESS AMONG UNIVERSITY STUDENTS IN KIRKUK/IRAQ

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Master of Science in Nursing

Advisor: Asst. Prof. Aysun ERGÜL TOPÇU

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High-risk behaviors are among the most serious threats to the physical and mental health of young adults. The aim of this study is to examine health risk behaviors and perceived loneliness levels in university students. This study is a cross-sectional and descriptive study. A purposeful random sample was taken from 240 students. 128 (53.3%) of the students participating in the study were females and 112 (46.7%) were males, and the mean age was 22.62 (SD = 3.15). Data were collected from students at Kirkuk University/Iraq through face-to-face interviews with students between 15 November 2022 and 15 January 2023. The students answered the questions directed to them without the intervention of the researcher. Each interview lasted approximately 15 minutes. The data collection tool of the research consists of three parts. The first part is the sociodemographic form that includes age, gender, grade, father education, mother education and monthly income. The second part is the General Student Health Questionnaire (GSHS), which represents eight areas and contains 57 questions. The third part is the Loneliness Scale, which consists of 20 Likert type scored items. Data were analyzed using the statistical package for social sciences (SPSS) for Windows version 26. The results showed that 65.8% of the students were in the fourth grade, 32.9% of the students' father had a university degree, 34.2% of students' mother had a primary school degree, and 53.8% of them had income to cover their expenses. When the body mass indexes of the students were examined, it was seen that 41.7% were at normal weight, 27% were overweight and 31.3% were obese. The study also found that males' GSHS scores and loneliness scores were significantly higher than females'. When the grade levels of the students were examined, it was seen that the GSHS and loneliness scores of

the students at the first level were higher than those of the students at the other levels. Regarding the father's education, the GSHS and loneliness scores of the students whose fathers were illiterate were found to be higher than the other education levels. According to the educational status of the mothers, the GSHS scores of the students whose mothers were secondary school graduates and the loneliness scores of those whose mothers were primary school graduates were higher than the others. While the GSHS score of the students whose monthly income is less than their expenses is higher, the loneliness levels of the students whose monthly income is more than their expenses were found to be higher. In addition, the GSHS and loneliness levels of obese students were found to be higher than those of normal weight and overweight students. Finally, a very high ($r = .71$, $p < .000$) correlation was found between the loneliness levels and the General Student Health Questionnaire score of the students. According to this result, as students' loneliness scores increase, negative health behaviors increase. University is an important period in which lifelong habits are acquired. Therefore, preventive intervention programs in this period will prevent the transfer of health risk behaviors to the later stages of life. In this context, it is important for universities to provide services, such as healthy foods, adequate and easy accessible sport facilities, that will support students' health behaviors. Implementing educational programs that focus on raising awareness among students about the importance of healthy living is another preventive approach that universities can offer. In addition, supporting activities that will strengthen students' social relations will help reduce the loneliness levels of students.

2024, 80 pages

Keywords: Health risk behaviors, Perceived loneliness, University students

ÖZET

KERKÜK/IRAK'TA ÜNİVERSİTE ÖĞRENCİLERİ ARASINDA SAĞLIK AÇISINDAN RİSKLİ DAVRANIŞLAR VE ALGILANAN YALNIZLIK

Khalaf Mhaimeed Tawfeeq TAWFEEQ

Hemşirelik, Yüksek Lisans

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İnsan yaşamında bir aşamadan diğerine geçişte önemli değişimleri içeren çeşitli gelişimsel dönemler vardır. Genç yetişkinlik döneminde meydana gelen önemli bir yaşam olayı olan liseden üniversiteye geçiş, bireylerin ilişkilerini, alışkanlıklarını, varsayımlarını ve rollerini etkileyen yapısal ve sosyal değişimlerle yakından bağlantılıdır (Santos, 2001). Üniversiteye ilk başladıklarında öğrenciler genellikle yeni bir yere taşınırlar ve aile dinamikleri değişir. Yeni karşılaştıkları özgürlük ve sorumlulukla, üniversite öğrencileri daha bağımsız hareket etmeye başlarlar (Hajek ve ark. 2020). Liseden üniversiteye geçiş yapmanın pek çok olumlu yönü olsa da kişinin yakın arkadaşlarının veya ailesinin olmadığı yeni bir yere taşınması, izolasyon gibi riskleri de içinde barındırır. İster düzenli sosyal etkileşim eksikliğinden ister çevredekilerle ilişki kuramamaktan veya sevilen kişilerden coğrafi olarak ayrı kalmaktan kaynaklansın, yalnızlık yaygın bir insan deneyimidir (Yanguas ve ark. 2018). Holt-Lunstad ve Smith (2016), yalnızlığın dünya çapında yaklaşık beş kişiden birini etkilediğini bulmuştur. Gelişmiş ülkelerde yaşlıların sayısının artması, izolasyon ile ölüm riskinin artması arasındaki bağlantı ve yalnızlığın olumsuz etkileri nedeniyle yalnızlık, damgalanmasına, önemsizleştirilmesine veya görmezden gelinmesine rağmen giderek daha fazla bir halk sağlığı sorunu haline geliyor.

Yalnızlık duygusunun kökeninde tatmin edici sosyal ilişkilerin eksikliği olduğu düşünülmektedir. Yalnızlık Fish ve Weiss (2019) tarafından diğer bireylerle algılanan sosyal ilişki eksikliği olarak tanımlanmıştır. Yalnızlığın hem zihinsel hem de fiziksel sağlık üzerinde olumsuz etkileri bulunmaktadır. Psikopatoloji, şiddetli somatik

semptomlar, intihar eğilimi, genel sağlık, kardiyovasküler morbidite ve mortalite, bilişsel gerileme, demans, değişen uyku-uyanıklık dengesi, kronik komorbidite ve kardiyovasküler hastalık ve kanserden ölüm dahil olmak üzere birçok klinik sonuç yalnızlık ile ilişkili bulunmuştur (Lim ve ark. 2016). Araştırmalar ayrıca kendini yalnız hisseden üniversite öğrencilerinin depresyon ve kaygı yaşama olasılığının daha yüksek olduğunu göstermiştir (Barreto ve ark. 2021).

Genç yetişkinliğe geçiş ayrıca birçok insan için sağlık açısından riskli davranışlarda bulunmayı da beraberinde getirebilmektedir. Artan kanıtlara göre, yetişkinliğe geçiş, düzenli egzersiz ve dengeli beslenme gibi sağlığı geliştirici davranışlarda çarpıcı bir azalma ile ilişkilidir (Brown ve ark. 2014). Dünya çapında kardiyovasküler hastalık, kanser, diyabet ve obezite gibi kronik, birçok etiyolojik hastalığın yaygınlığı, sağlık açısından riskli davranışların erken tespitini sağlık eğitimcileri için giderek daha önemli bir hedef haline getirmiştir (Tork ve Al-Jalout, 2016). Sağlık açısından riskli davranışlar, genç yetişkinlerin fiziksel ve zihinsel sağlığı için en ciddi tehditler arasındadır. Ergenlik ve genç yetişkinlik, madde kullanımı, sağlıksız beslenme, riskli cinsel davranışlar, yetersiz fiziksel aktivite ve intihar düşüncesi dahil olmak üzere önde gelen ölüm ve hastalık nedenlerinin birçoğunun ortaya çıkması için kritik dönemlerdir (Price ve Khubchandani, 2019).

Dünya nüfusunun %20'den fazlası şu anda 25 yaşın altındadır ve bu oran mevcut demografik eğilimlerin bir sonucu olarak artma eğilimindedir. Suudi Arabistan nüfusunun yaklaşık dörtte biri 25 yaşın altındadır (ABD Nüfus Bürosu, 2014). Körfez bölgesindeki insanlar, sağlık ve hijyen gibi modern yaşam tarzı faktörlerine yönelik araştırmalara geleneksel olarak dirençli olmuştur (Albuhairan ve ark. 2012). Buna bağlı olarak bu bölgede yaşayan gençlerde sağlık risk davranışları ile ilgili bir literatür eksikliği vardır. Bununla birlikte riskli sağlık davranışlarının önlenmesi için ergen ve genç yetişkin sağlığı alanındaki politika yapıcıların ve karar vericilerin ulusal göstergelere erişmesi gerekmektedir (Albuhairan ve ark. 2015).

Tüm bu noktalardan hareketle bu çalışmada, üniversite öğrencileri arasında sağlık açısından riskli davranışlar ve algılanan yalnızlığın incelenmesi amaçlanmıştır. Bu

bağlamda öncelikle öğrencilerin sağlık açısından riskli davranış düzeyleri ile yalnızlık düzeylerinin belirlenmesi amaçlanmıştır. Araştırmanın diğer bir amacı üniversite öğrencileri arasında sağlık açısından riskli davranışlar ile algılanan yalnızlık düzeylerinin yaş, cinsiyet, öğrencinin okuduğu sınıf, annenin ve babanın eğitim düzeyi ve aylık hane geliri gibi demografik faktörlere bağlı olarak farklılaşıp farklılaşmadığını incelemektir. Araştırmada son olarak sağlık açısından riskli davranışlar ile algılanan yalnızlık arasındaki ilişkinin incelenmesi hedeflenmiştir.

Bu çalışma kesitsel ve tanımlayıcı bir araştırmadır. 240 öğrenciden amaçlı rastgele bir örneklem alınmıştır. Araştırmaya katılan öğrencilerin 128 (%53.3) kız ve 112'si (%46.7) erkektir ve yaş ortalaması 22.62 (SD = 3.15)'dir. Veriler, Irak'taki Kerkük Üniversitesi öğrencilerden 15 Kasım 2022-15 Ocak 2023 tarihleri arasında yüz yüze görüşme yoluyla toplanmıştır. Öğrenciler kendilerine yöneltilen soruları araştırmacının müdahalesi olmadan yanıtlamışlardır. Her bir görüşme yaklaşık 15 dakika sürmüştür. Araştırmanın veri toplama aracı üç bölümden oluşmaktadır. Birinci bölüm yaş, cinsiyet, okuduğu sınıf, baba eğitimi, anne eğitimi ve aylık geliri içeren sosyodemografik formdur. İkinci bölüm sekiz alanı (diyet, vücut kitle indeksi, fiziksel aktivite, hijyen, psikolojik sağlık, şiddet ve kasıtsız yaralanmalar, tütün kullanımı ve koruyucu faktörler) temsil eden ve 57 soru içeren Genel Öğrenci Sağlık Anketi'dir (GSHS). Üçüncü bölüm, Likert tipi puanlanan 20 maddeden oluşan Yalnızlık Ölçeği'dir. Veriler, sosyal bilimler için istatistiksel paket (SPSS) Windows sürüm 26 kullanılarak analiz edildi.

Sonuçlar, öğrencilerin %65,8'i dördüncü sınıfta okuduğunu, %32,9'unun babalarının üniversite mezunu, %34,2'sinin annelerinin ilkokul mezunu olduğunu, %53,8'inin gelirlerinin giderlerini karşıladığını göstermiştir. Öğrencilerin vücut kitle indeksleri incelendiğinde %41,7'sinin normal kiloda, %27'sinin kilolu ve %31,3'ünün obez olduğu görülmüştür. Araştırmada ayrıca erkeklerin GSHS puanlarının ve yalnızlık puanlarının kadınlarinkinden anlamlı olarak yüksek olduğu bulunmuştur. Öğrencilerin sınıf seviyeleri incelendiğinde birinci kademedeki öğrencilerin GSHS ve yalnızlık puanlarının diğer kademedeki öğrencilerinkinden daha yüksek olduğu görülmüştür. Baba eğitimi ile ilgili olarak, babası okuma yazma bilmeyen öğrencilerin GSHS ve yalnızlık puanı diğer eğitim kademelerine göre daha yüksek bulunmuştur. Anne eğitim durumuna

göre, annesi ortaokul mezunu olan öğrencilerin GSHS puanları ve annesi ilkokul mezunu olanların yalnızlık puanları diğerlerinden daha yüksek çıkmıştır. Aylık geliri giderinden az olan öğrencilerin GSHS puanı daha yüksek iken aylık geliri giderinden fazla olan öğrencilerin yalnızlık düzeyleri daha yüksek bulunmuştur. Ayrıca, obez öğrencilerin GSHS ve yalnızlık düzeyleri normal kilodaki ve kilolu öğrencilerinkinden daha yüksek bulunmuştur. Son olarak, öğrencilerin yalnızlık düzeyleri ile Genel Öğrenci Sağlık Anketinden aldıkları puan arasında oldukça yüksek ($r = .71$, $p < .000$) bir ilişki bulunmuştur. Bu sonuca göre öğrencilerin yalnızlık puanları arttıkça olumsuz sağlık davranışları artmaktadır.

Üniversite yaşam boyu sürececek alışkanlıkların kazanıldığı önemli bir dönemdir. Bu nedenle bu dönemdeki önleyici müdahale programları, sağlık açısından riskli davranışların yaşamın ileriki dönemlerine aktarılmasını engelleyecektir. Bu bağlamda üniversitelerin öğrencilerin sağlık davranışlarını destekleyecek sağlıklı beslenme, yeterli ve kolay ulaşılabilir spor tesisleri gibi hizmetler sunmaları önemlidir. Öğrencileri sağlıklı yaşamın önemi konusunda bilinçlendirmeye odaklanan eğitim programları uygulamak, üniversitelerin sunabileceği bir başka önleyici yaklaşımdır. Ayrıca öğrencilerin sosyal ilişkilerini güçlendirecek destekleyici etkinlikler öğrencilerin yalnızlık düzeylerinin azalmasına yardımcı olacaktır.

2024, 80 sayfa

Anahtar Kelimeler: Algılanan yalnızlık, Sağlık açısından riskli davranışlar, Üniversite öğrencileri

PREFACE AND ACKNOWLEDGEMENTS

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I extend my heartfelt gratitude to my university for providing me with a nurturing environment to pursue my academic goals. The opportunities and resources offered by my university have been instrumental in my learning and research endeavors. I am proud to be a part of this esteemed institution, and I am grateful for the education and experiences it has provided me.

To my Family,

I cannot express enough gratitude for the love, support, and encouragement I have received from my family. Their unwavering belief in me has been my driving force throughout this journey. I dedicate this achievement to them, as it represents their sacrifices, understanding, and unwavering faith in my abilities. Thank you for being my constant source of inspiration and motivation.

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INDEX OF ABBREVIATIONS AND SYMBOLS

BMI	Body mass index
CDC	Centers for disease control
COVID-19	Coronavirus disease 2019
GSHS	Global student health survey
HBM	Health belief model
KWX2	Kruskal wallis test
NK	Natural killer
SPSS	Statistical package for social sciences
WHO	World health organization



LIST OF ABBREVIATIONS

P	p value
%	Percentage
±	Plus minus
SD	Standard deviation



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1. INTRODUCTION

1.1 General overview

Throughout their lifetimes, most people will experience multiple significant shifts. Many young people's lives undergo profound transformations as they move from high school to college, bringing about structural and societal shifts in both their personal and professional spheres. At university age, one's responsibility for one's behavior increases (Goodman *et al.* 2006). When kids return to school after a summer break, they often have new routines at home and ways of talking to their parents. Although moving to a new city may give you with interesting new options, it may also be a very lonely experience if you don't know anyone there.

A lack of satisfying social relationships is thought to be at the root of the subjective feeling known as loneliness. Both emotional loneliness due to a lack of close relationships and social loneliness due to a lack of friends or acquaintance networks have been identified by Weiss (Rico-Urbe *et al.* 2018). When a person lacks social integration, such as into a group of friends who share common interests, they may experience emotional loneliness. To get a whole picture of both types of isolation, we need to look at them separately, as emotional and social isolation are not antonyms (Stickley and Koyanagi 2018).

There is a severe lack of research demonstrating the detrimental impacts of isolation on the health and well-being of college students. A global study (Peltzer and Pengpid 2017) linked insomnia to emotions of loneliness and sadness. Furthermore, studies have investigated the link between social isolation and health issues, as well as between social isolation and the physical response to stress (O'Donovan and Hughes 2007).

The Centers for Disease Control and Prevention (CDC) prioritizes the prevention and control of six primary childhood and adult diseases. Most of these bad habits begin in childhood, when it's easiest to break them. These kinds of practices are also bad for

schools and the public at large. Tobacco use, as well as excessive use of alcohol and other drugs, poor nutrition, insufficient exercise, suicidal behaviors, and inactivity, are all detrimental to one's health. Suicide and other forms of intentional and accidental injury are exacerbated by such behavior (Brenner *et al.* 2013). The prevalence of chronic, multi-etiological diseases such as cardiovascular disease, cancer, diabetes, and obesity around the world has made early detection of health risk behavior an increasingly important goal for health educators (Tork and Al-Jalout 2016). Adolescence and early adulthood are critical periods for the establishment of many of the leading causes of death and morbidity among youth and adults, including substance abuse, unhealthy eating, risky sexual behaviors, inadequate physical activity, and suicidal ideation (Price and Khubchandani 2019). Adolescents' developing brains, emotions, and social networks allow them to try more things and take more chances.

More over 20% of the world's population is now under the age of 25. Their frequency is growing as a result of current demographic tendencies. About a quarter of Saudi Arabia's population is under the age of 25 (US Census Bureau 2014). Health information for teenagers in Saudi Arabia is scarce, and there is a lack of literature that is indicative of national needs. For successful resource allocation, policy and decision-makers in the field of adolescent health need access to national indicators (Albuhairan *et al.* 2015). People in the Gulf region have traditionally been resistant to research into modern lifestyle factors including health and hygiene (Albuhairan *et al.* 2012).

The goal of this research was to examine the relationship between perceived loneliness and demographic factors like age, gender, stage of life, parental education level, and monthly household income among university students. The study also hopes to determine if there is any connection between loneliness and other health risk behaviors.

1.2 Objective of the study

- To find out the prevalence of the health risk behaviors and perceived loneliness in university students.
- To investigate the health risk behaviors and perceived loneliness in university students in terms of demographic variables such as age, gender, stage, father education, mother education, monthly income.
- To find out the relationships between health risk behaviors and perceived loneliness.

1.3 Hypothesis

The main hypothesis of the research are,

H0: There is no a relationship between health risk behaviors and perceived loneliness and certain variables.

H1: There is a relationship between health risk behaviors and perceived loneliness and certain variables.

1.4 Importance of the study

There are several developmental social transitions from one stage of life to the next. The move from high school to college is a major life event that can have lasting effects on one's relationships, routines, assumptions, and roles as they mature into adulthood. With their newfound freedom and responsibility, college freshman start acting on their own will (Hajek *et al.* 2020). It's typical for students to move and for family dynamics to change when they first start college. While doing so can be exciting, it isn't without its risks, such as the isolation that can come with relocating to a new area where you don't know anyone. As defined by Goodman *et al.* (2006) and Fish and Weiss (2019), loneliness is defined as a perceived lack of social relationships with other individuals.

Many young adults' health issues can be efficiently treated in a comprehensive manner on college and university campuses. There is an increase in the rates of suicide and

smoking at this time, and many students also engage in risky behaviors including drinking and drug usage to excess, eating poorly, and not getting enough exercise. Obviously, their behavior endangers them (Brener *et al.* 2013). College students' mental health and the prevention of chronic, multi-etiological diseases like cardiovascular disease, cancer, diabetes, and obesity depend on the early detection of such risk behaviors. Risky but preventable behaviors, such as smoking, binge drinking, and obesity, are commonly established in childhood and continue throughout adulthood. However, there is a lack of data regarding the wellbeing of Iraq's sizable youth population.

Given this background, the study's primary objective is to investigate the extent to which university students in Iraq experience loneliness and engage in health risk behaviors, as well as the nature of the links between these two factors. Tobacco usage, body mass index, exercise, cleanliness, mental health, physical and sexual assault, accidental injury, and protective variables will all be investigated in this line of inquiry. In this context, we shall focus on loneliness as experienced along a single dimension.

2. LITERATURE REVIEW

2.1 Background

People go through many different kinds of social transformations as they age (Robertson 2020). As a key life event occurring in late adolescence, the transition from high school to college is linked to structural and social changes that affect individuals' relationships, routines, assumptions, and roles (Santos 2001). While there are many positive aspects to making the jump from high school to college, there is also the possibility of feeling lonely if you relocate to a new location (such as a new city) without any of your close friends or family. Whether it's from a lack of regular social interaction, an inability to relate to those around you, or a geographical separation from loved ones, loneliness is a common human experience (Yanguas *et al.* 2018).

Many perspectives suggest that loneliness has multiple meanings. Common definitions include "independence" or "the ability to manage on one's own." As an alternative, we might say that "loneliness is not necessarily about being alone." It is not a physical isolation but rather "the feeling of being alone" or "a certain frame of mind." Loneliness has been defined in a variety of ways, including "a subjective, bad feeling associated with the lack of social interactions" and "an inability to find significance in one's life" (Stravynski and Boyer 2001). Like any other human emotion, loneliness can look and feel different depending on who you ask. No single factor can account for the wide range of responses people have developed to this distressing state of mind. How a young child should go about making friends at school and how an elderly person should handle the death of a spouse are two very different situations that require very different approaches. By examining the numerous reasons that contribute to loneliness, as well as the health problems it can create, the symptoms it can lead to, and the methods in which it can be treated (General and Welfare 2013), we might obtain a better understanding of what it means to be lonely.

2.2 Loneliness

Being alone brings on the uncomfortable and complicated feeling of loneliness. Those who are chronically alone worry about their present and future social ties more than the general population. So, being lonely is possible even when surrounded by people. Isolation can have several causes, both internal and external to the individual and to the larger social and cultural context in which they exist. Loneliness has been shown to affect people of all ages and backgrounds.

Since classical antiquity, humans have chronicled this phenomenon in literary form. Some people use their feelings of isolation as a "social pain" to propel them to make new friends and expand their social circles. Specifically, "the unpleasant experience that occurs when a person's network of social ties is weak in some fundamental aspect" (Siddique 2017) is one description of loneliness.

Loneliness can be caused by a lack of meaningful social interactions at any point in life. However, loneliness can be an indicator of a more serious condition, such as depression. Young children who are abandoned typically face loneliness for the first time. This is a typical, though fleeting, reaction to the dissolution of a serious long-term relationship. This is a normal response to the pain of losing a loved one and being thrust into seclusion. After grieving the loss of a loved one, feelings of isolation can creep in even when surrounded by others. Isolation and loneliness are major contributors to postpartum depression among new mothers. It's common for newlyweds to feel lonely as they settle into their new home and family life (Primack *et al.* 2017). Relationships characterized by negative emotions like anger, resentment, or an inability to offer or accept love typically lead to feelings of isolation. Isolation can result from a lack of human company, as seen in sparsely inhabited places, or a lack of communication between persons. The feeling of isolation can spread over a community or even a whole country. One lonely individual can increase the other members' feelings of isolation (Cacioppo 2015). It is conceivable for somebody to feel lonely even while surrounded by many others. In a study of twins, researchers discovered that, similar to estimates of heritability observed in children, genetics explain for approximately half of the visible differences in loneliness. None of

the environmental factors that Peplau (2020) considered likely contributed to the development of adult loneliness.

2.3 Typology difference between loneliness and isolation

One thing is to feel lonely, and another is to be socially isolated. For example, whereas solitude is defined as an absence of human interaction per se, loneliness can be interpreted as a gap between one's desired and actual degrees of social connection. Loneliness is a state of mind, then, and only exists when one feels it does. Being lonely can happen anywhere, at any time. To put it simply, a lonely person is one who would benefit from more or different types of social connection than they now have access to. If you don't make any friends at a party, you could feel lonely even though there are lots of other people there. On the other hand, it is possible to be alone without feeling lonely, this person, despite being socially isolated, does not feel lonely. It has also been theorized that there is an optimum level of social involvement for each individual. If a person does not have enough or too much social involvement, they may experience feelings of loneliness or isolation. It may be beneficial to give yourself time alone for introspection once in a while. One study found that although time spent alone can make you feel lonely and depressed, it can also improve your ability to concentrate and increase your output. People's moods also improved significantly when the time alone was over (National Academies of Sciences 2020). Examples of solitary rites of passage include the pursuit of personal growth, spiritual awakening, and the forging of one's own identity through travel. Some of your most creative thinking may occur when you're alone yourself. Emily Dickinson and many other artists are prime instances of how being alone can bring out the best in them creatively. Although persons who engage in creative activities are more likely to experience loneliness, this does not prove that isolation is a necessary condition for original thought (Holt-Lunstad *et al.* 2015).

❖ **Transient vs. chronic loneliness**

The passage of time is taken into account in another key type of loneliness. How long you feel lonely for determines whether or not it's a temporary condition. There are a number of labels that may be applied to the experience of loneliness. Temporary loneliness is not a permanent state, as it is caused by external factors and can be quickly remedied. Those who have chronic (trait) loneliness have little to no influence over the duration or intensity of their feelings of isolation, and the condition is notoriously difficult to treat. When a person's isolation is temporary, such when they are sick and unable to meet their friends, they experience what is known as "transient loneliness." Assuming the individual makes a full recovery, resuming social interactions and forgetting about their previous isolation should be a breeze. Loneliness is a symptom of chronic loneliness, which affects people even when they are surrounded by loved ones or friends. Despite changes in one's environment, feelings of loneliness can linger (Martin-Mara *et al.* 2020).

❖ **Loneliness as a human condition**

Existentialism advocates stress the importance of solitude in understanding the human experience. Everyone is born an individual, goes their own way through life, and dies on their own. Adjusting to these facts, accepting them, and taking responsibility of one's life with a minimum of composure and contentment constitutes the human condition. For some philosophers, like Jean-Paul Sartre, the mismatch between the conscious need for meaning and the enormous nothingness of the cosmos makes epistemic loneliness an inevitable part of the human situation. Another school of existential thought holds that human beings are intrinsically social creatures who constantly interact with one another and the universe through speech and art, and that loneliness is nothing more than the feeling of being excluded from this interaction (Cacioppo and Cacioppo 2018).

2.4 Frequency

Lonely persons are known to have a heightened awareness of social hazards and a tendency toward self-preservation. High-loneliness individuals don't seem to differ from low-loneliness individuals in their daily lives, at least not in terms of extremely objective,

measurable occurrences (Mund and Neyer 2019). There is no link between loneliness and things like spending time alone, engaging in social activities, or maintaining an upbeat disposition throughout the day. But studies have connected loneliness with having a negative mood and withdrawing from others. Lonely people, according to research by van Roekel *et al.* (2016), react more strongly emotionally to positive and negative contacts.

The elderly and those residing in low-density suburbs in developed countries have seen the greatest increases in loneliness. Seniors in the suburbs become "stuck" in isolation when they lose the ability to drive (Barreto *et al.* 2021). However, this finding may just be a result of more research being done on the topic in the United States than in any other country. The American Sociological Review found that in 2006, the average American had just two close friends, down significantly from four in 1985. Statistics show that the percentage of people who report having no one they can confide in has increased from 10% to almost 25%, while the percentage of people who report having only one such confidant, most often their spouse, has increased by a significant margin, suggesting an increased risk of serious loneliness in the event of the relationship's end. Some research suggests that today's workplaces can be particularly isolating for their employees. Those who are prone to feeling alone at work may misinterpret the attention of their coworkers to the tasks at hand as a deliberate attempt to ignore them, according to research by Page and Hammermeister (1995).

Those who use the Internet to keep in touch with friends and family (especially the elderly) report feeling less lonely, while those who try to make friends online say they experience more loneliness. Among the findings from a study conducted between 2002 and 2010 was that "Internet use was found to significantly decrease loneliness and depression, while perceived social support and self-esteem increased significantly," and that the Internet "has an enabling and empowering role in people's lives, by increasing their sense of freedom and control, which has a positive impact on well-being or happiness." Longer commuting times are linked to greater feelings of loneliness (and other negative health effects) (Rico-Urbe *et al.* 2016), making them one of the few definitive results of increased isolation.

The topic of loneliness has been the subject of countless surveys and research. Scientists have had a hard time making confident comparisons and generalizations in the past. Loneliness can be measured on a variety of scales, and even when the same scale is used, there may be substantial difference between research. There may be cross-cultural differences in how people perceive loneliness (Stickley *et al.* 2013).

The assumption that loneliness gets worse with age permeates the literature written about it in the 20th and early 21st centuries. Loneliness affects about one in four persons over the age of 60 and about one in three people over the age of 75 in high-income countries. Although loneliness is still acknowledged to be a serious concern for the extremely old (Reichl *et al.* 2013), recent research reveal that as of 2020, on the whole, it is young people who report the greatest loneliness. Several studies have looked at the differences in loneliness experienced by the sexes. BBC created a global dataset for its 2020 project, and despite conflicting evidence or the lack of a difference between the sexes, they discovered that males were more lonely than women (Diehl *et al.* 2018).

A study conducted in 2020 using the BBC dataset found that countries with a strong emphasis on individualism, such as the UK, had greater rates of loneliness. However, it is still difficult to confidently assess parallels across cultures. Individuals in collectivist communities, where there are less opportunities to form deep connections with others, tend to be at greater risk of experiencing loneliness than those in more individualistic ones (Victor 2021).

It's typical for students to have feelings of isolation when away at university. 16.3 percent of Northern Irish college students report feeling lonely on a regular basis, compared to 14.7% of American women and 6.7% of American men, 14.4% of Russian women and 8.9% of Russian men report feeling lonely on a regular basis, respectively, according to a study conducted in 2014 by Stickley *et al.* Both male and female students in the Philippines (11.2 and 11.4%, respectively) and Chinese universities (6.6% and 8.1%, respectively) reported feeling lonely on a frequent basis.

Strong family and community ties are valued in Middle Eastern societies, which frequently feature collectivist cultural values. The prevalence of social networks and strong bonds among neighbors may indicate less lonely people. However, it's vital to remember that societal changes can greatly affect social dynamics and individual feelings of loneliness, including urbanization, globalization, and the impact of conflict or displacement (Shwalb 2007).

Migration, social isolation, and displacement as a result of conflict all contribute, according to studies conducted in the Middle East, to an increase in loneliness. Tian *et al.* (2021) found that in Middle Eastern societies, social connectivity, support networks, and maintaining cultural and religious traditions were protective factors against loneliness.

It's important to remember that studies on loneliness are still being conducted in Iraq and other Middle Eastern nations, and that more research is needed to determine the precise cultural, sociological, and psychological aspects that contribute to loneliness in these regions. It is crucial to approach the problem of loneliness in a culturally sensitive and context-specific manner due to the intricate interplay between culture, social structures, and individual experiences (Rohner *et al.* 2020).

2.5 The effects of loneliness on psychological and physical health

Negative effects on both mental and physical health have been linked to loneliness. Several clinical outcomes, including psychopathology, severe somatic symptoms, suicidality, general health, cardiovascular morbidity and mortality, cognitive decline, dementia, altered sleep-wake balance, increased pro-inflammatory activity, chronic comorbidity, and mortality from cardiovascular disease and cancer, have been found to have medium-to-large associations with loneliness (Lim *et al.* 2016).

❖ Effects on mental health

Those who don't have many supportive relationships are more likely to contemplate or attempt suicide. Problems with mental health and substance misuse are more prevalent

among adults who live alone. Sleep disturbances in socially isolated adults have been linked to longer recovery times (Galderisi *et al.* 2015). Losing sleep also may have a dramatic impact on one's capacity to carry out daily tasks. Youth who don't have a strong social network are more vulnerable to negative influences like drug and alcohol abuse. Cognitive deterioration has been linked to isolation at all ages (Richardson *et al.* 2017).

College students are prone to acquiring mental health problems and concerns about their social networks due to the high levels of pressure they are under to succeed academically. Cognitive dissonance between the ideal quality of relationships and real experiences might cause students to feel lonely despite frequent interaction with others. Previous research has shown that college students who feel lonely are more likely to suffer from depression and anxiety (Barreto *et al.* 2021).

❖ **Effects on physical health**

Isolation can be dangerous if left untreated. It has been linked to a higher prevalence of cardiovascular disease and stroke. Isolation has been linked to metabolic syndrome symptoms as high blood pressure, high cholesterol, and obesity. Cortisol, the stress hormone, is higher in the isolated (Kang *et al.* 2018). Anxiety, sadness, gastrointestinal issues, cardiovascular illness, sleep disorders, and weight gain have all been linked to chronically increased cortisol levels. Antibody titers against Epstein-Barr virus and human herpes viruses are elevated in lonely people and natural killer (NK) cell activity is decreased in lonely people. Socially isolated young adults have weaker cellular immunity, which makes immunizations like the flu shot less effective. According to research (Pels and Kleinert 2016), HIV-positive men who live alone experience a more rapid disease progression.

There are a variety of postulated physiological mechanisms linking loneliness to adverse health effects. Interleukin 6 (IL-6) is a blood molecule associated to heart disease, and the American Framingham Heart Study reported in 2005 that lonely men had higher than average levels of IL-6. For adults over the age of fifty, loneliness can lead to a 30% increase in blood pressure, according to research released in 2006 by the University of

Chicago's Center for Cognitive and Social Neuroscience. A second finding comes from a survey conducted by John Cacioppo, a professor at the University of Chicago: doctors said they treat patients with a strong network of family and friends better than they treat patients who are alone. Cacioppo suggests that being alone can have negative effects on your health, including lowering your blood pressure and making it harder for you to think clearly. People who spend a lot of time alone are more likely to exhibit symptoms of viral reactivation. People who spend more time alone also had more intense inflammatory reactions to short-term stress, which makes sense given that inflammation is known to increase the probability of acquiring age-related disorders. A dip in body temperature is a physiological response to social isolation. When people are made to feel unwelcome, their organs retain more heat than usual because their peripheral blood arteries narrow. Vasoconstriction describes this form of group defense (Jaremka *et al.* 2013).

2.6 Treatments and prevention

Treatment options for clinical depression, loneliness, and isolation are varied. Most medical professionals would advise you to begin therapy right away. Numerous people have found success in reducing their feelings of isolation through the use of therapy. Treatment for social isolation and depression often lasts between 10 and 20 weeks. The goal of therapy is to help the individual feel more attuned to themselves and the world around them by identifying and modifying maladaptive patterns of thought, emotion, and behavior that have emerged as a result of the presenting issue. Some medical professionals advocate for group therapy as a means for patients to connect with and receive support from a community of peers (Crowe *et al.* 2022). Antidepressants are widely used to treat significant depression, either in tandem with psychotherapy or as a standalone treatment. More than one attempt at finding an effective antidepressant may be necessary. Furthermore, some individuals may require frequent prescription changes due to developing a resistance to their first treatment. Medical professionals in the mainstream are beginning to see the benefits of non-pharmaceutical approaches to treating depression. Exercise, healthy nutrition, hypnotherapy, electric shock, acupuncture, and medicine are just a few of the options. Many persons report reduced or no depressed symptoms after engaging in these pursuits (Van den Brink *et al.* 2018). Animal-assisted therapy, often known as pet therapy, is an alternative method of treating

mental health issues. People who struggle with depression and isolation can benefit from caring for a pet like a dog, cat, rabbit, or guinea pig. The joys of pet ownership extend far beyond the time spent with the animal itself, since animal lovers often find themselves in the company of others who understand and appreciate their interests. Pet owners have been found to have lower rates of hypertension, cholesterol, and triglyceride levels (Cherniack and Cherniack 2014) among other positive health outcomes. As an added bonus, looking back on one's life might make one feel more connected to others and more appreciative of one's community (Habibi *et al.* 2018). A major inverse link between religious participation and isolation in the elderly was discovered in a 1989 study. Loneliness was found to be more stable than the influence of social interactions with family and friends, but the subjective idea of religion was found to have no effect (Jennifer Yeh and Lo 2004). Improving social skills, expanding one's social network, and addressing social cognition deficits were all found to have identical impacts (incorrect assumptions and thought patterns) in a single study. The study indicated that all therapies, even those without a focus on social skills, were beneficial in lowering feelings of isolation. The meta-analysis concluded that correcting dysfunctional patterns of thought about others is one of the most effective methods to prevent rising rates of loneliness (Yang *et al.* 2017).

2.7 Health behavioral theory

The key to achieving and maintaining optimal health is to follow a healthy lifestyle and to use any medical treatments as directed. More and more people understand the connection between their actions and their health, longevity, and quality of life. Seven of the top 10 killers in 2015 were also chronic diseases whose outcomes were affected by people's choices in how they cared for themselves. The health behavior model (HBM) has been used to examine a wide range of health behaviors across numerous population groups. In order to explain and predict people's participation in public health initiatives like flu vaccinations, high blood pressure screenings, smoking cessation, seatbelt use, exercise, healthy eating, and breast self-examination, the HBM has been used in a wide range of contexts by researchers (Bryne *et al.* 2016).

The focus has shifted from understanding predictors of engaging in positive health behavior change to the role that one's health behavior plays in preserving one's health and wellbeing, especially one's attention to preventive health behaviors and the role of technology in assessing and promoting health behaviors and disseminating interventions to increase accessibility and impact.

The researchers also ran moderation analyses, discovering that those who said they felt their basic needs were covered and who had optimism about the future were more likely to take care of their health. Together, meeting emotional needs and having hope for the future appear to have a good effect on health-related actions. The onset of numerous fatal diseases can be prevented by adopting healthier lifestyle practices, which in turn can be influenced by both social and individual factors.

2.8 Factors affecting of the loneliness

❖ Existential

For a long time, it has been generally accepted that virtually everyone has felt isolation at some point in their lives. Loneliness is unavoidable due to the difficulty of permanently satisfying the urge for connection during a human lifetime. Professors like Michele A. Carter and Ben Lazare Mijuskovic have made their careers out of researching and writing about the existential viewpoint. In an essay written in the 1930s, Thomas Wolfe Wolfe notes that although everyone experiences loneliness at some point, it can take many different forms. *God's Lonely Man* is widely read and talked about amongst those involved in this field. On the other hand, those who subscribe to an existentialist worldview are pessimistic about our ability to eradicate loneliness entirely because they think that being alone is both unavoidable and even beneficial because it makes us appreciate the good things in life more deeply (Vivek Murthy 2020).

❖ Cultural

Loneliness has been linked to social and cultural influences. Cultural differences in these two areas have been connected to loneliness. Migrants often struggle with feelings of

isolation after being forced to leave behind friends and family. Students from Asian nations with a more community culture may experience this to a greater extent than others when studying in English-speaking countries with a larger emphasis on individualism. Due to the Enlightenment's prioritization of individualism over collectivism, Western society has been criticized for encouraging loneliness (Alberti 2019). Individualism-bounded (as opposed to collectivism-bounded) culture has a significant impact on loneliness, especially among young men, according to a recent global study that surveyed over 46,000 people aged 16-99 from 237 countries (Zyl *et al.* 2018).

❖ **Factors related to personality traits**

However, relationships with predisposing personality qualities such low self-esteem, shyness, introversion, self-consciousness, resilience, or optimism have been shown (Fried *et al.* 2020), suggesting that these factors may play a role in the development of loneliness.

A person's thoughts, feelings, and actions are greatly influenced by their personality qualities. Personality traits are linked to many different things, and learning about these connections can shed light on human nature and variation. According to research (Morales-Vives *et al.* 2014), there are a number of characteristics that can influence one's personality. Personality traits may be influenced by biological and genetic variables, according to studies. Certain personality traits, such as extraversion and neuroticism, have been demonstrated to have a hereditary component, according to studies on twins and families. Furthermore, differences in brain anatomy and neurotransmitter levels have been associated with differences in personality (DeYoung 2010).

Family, culture, and upbringing are all examples of environmental influences that can shape an individual's personality. Personality traits and behavioral patterns can be formed by one's early environment, parenting style, and socialization. The expression and presentation of some features might vary from one culture to the next depending on cultural norms and values (Hopwood *et al.* 2021).

Characteristics of an individual's personality can be influenced by their cognitive processes. In contrast to people who are more pessimistic, those who are more optimistic tend to exhibit characteristics that are linked to more positive emotions and more resilience (Chiesi and Primi 2010).

Personality can be shaped through one's social interactions, friendships, and duties in society. People frequently modify their personalities and habits to conform to the norms of their social groups. Traits like agreeableness and openness to experience can be influenced by social support and relationships (Liu *et al.* 2013).

Personality can be influenced by both positive and negative life experiences. Changes in personality or the emergence of new behavioral patterns are not uncommon responses to traumatic experiences or major life upheavals. Tibbett and Ferrari (2015) found that personal accomplishments, educational experiences, and professional choices can all play a role in the manifestation of particular traits.

Personality qualities are linked to a number of psychological factors, including one's sense of self-worth, confidence in one's own abilities, and resiliency. People who have a healthy sense of self-worth are more likely to exhibit features like assertiveness and confidence, whereas those who don't may exhibit characteristics like shyness and insecurity (Roy and Bless 2000).

❖ Relationship loss

After a breakup or the death of a loved one, it's normal to feel lonely, although that sensation rarely lasts forever. While someone is grieving the loss of a loved one, they may feel lonely even while surrounded by many other people. Isolation and homesickness are common among people who relocate away from loved ones for work or school (Alberti 2019).

❖ **Situational**

Feelings of isolation can be the result of a combination of experiences and personality qualities. Extroverts, for instance, are more likely to feel lonely if they live in a rural region with few job and social options. Though having a child or getting married are both happy occasions that should bring people closer together, they can have the opposite effect and make lonely people feel even more isolated. This is especially true if the marriage turns out to be unstable, overly disruptive to the spouse's previous relationships, or emotionally cold. Preexisting mental health disorders, such as persistent melancholy and anxiety, might amplify the negative effects of loneliness (Alberti 2019).

❖ **Self perpetuating**

Long-term isolation can cause a person to become hypervigilant and socially awkward, making it more difficult for them to maintain existing friendships and open up to new people. It has been established that counseling aimed at changing such a negative view is one of the most effective ways to combat social isolation (Huang 2020).

❖ **Social contagion**

Isolation, once experienced by one person, can quickly spread to others in a group. The negative thoughts that can develop from isolation contribute to this process. A man's loss of a buddy might lead to maladaptive thinking, such as an increased desire for the approval of others or a suspicion of new friends. Not only that, but if he decides to split up with his remaining buddies, he will have lost even more substantial connections to real people. However, this contagious rise in loneliness does not necessarily lead to the maladaptive thinking that often follows. After losing a close friend, it's normal for people to reach out to others and either make new connections or deepen existing ones (Dunbar and Bzdok 2020).

❖ Internet

Data obtained in the 1990s suggests a moderate relationship between prolonged internet use and isolation. It's unclear whether the link between the two occurs because lonely people are more likely to use the internet or vice versa. According to the displacement theory, some people may choose to spend less time interacting with others in person and more time doing so virtually. Despite the internet's potential to cause anxiety and depression, which can amplify feelings of isolation, it also has the power to bring people together and give them a voice. Internet use has been linked to more feelings of isolation in some research (Hughes 1999). A large body of research (Shaw and Gant 2004) shows that time spent online can greatly reduce feelings of loneliness. A causal link between internet use and loneliness is more likely to be confirmed by evidence from research published after 2015. Negative consequences on mental health, such as an increase in feelings of loneliness, have been linked to even passive use to a harmful extent. Social media can be a useful tool for reducing isolation if used moderately and among people who engage in meaningful dialogue rather than passively ingesting content (Nowland *et al.* 2018).

❖ Genetics

An estimated 14-27% of loneliness can be attributed to genetics, according to a genome-wide association research conducted in 2016. Although genetics may play a role, environmental and interpersonal factors have a far greater impact on whether or not a person is lonely. However, preliminary research indicated that 37%-55% of the propensity to experience loneliness may be inherited (Gao *et al.* 2017).

2.9 History

Literature has been interested in the concept of solitude ever since the Epic of Gilgamesh was composed in the eighth century BC (Mijuskovic 2012). Fay Bound Alberti, however, claims that the term's current meaning as a synonym for unpleasant conditions did not appear until somewhere around the year 1800. Once upon a time, being alone was considered a "lonely" state while being generally recognized as healthy unless taken to

extremes. A negative emotional state labeled "loneliness" first appeared at the start of the nineteenth century. One possible explanation is the impact of the Enlightenment on international trade and cultural exchange. Some research suggests that as rural areas become more technologically advanced, community cohesion weakens and locals become more competitive and isolated (Alberti 2019). Until the late 20th century, despite a rising awareness of the problem, society and scientific study paid little attention to the issue of loneliness. In 1948, Joseph Harold Sheldon published one of the earliest studies on isolation (Anderson 2019). The issue of loneliness on college campuses received further attention with the 1950 publication of *The Lonely Crowd*. In 1966, when the Beatles released "Eleanor Rigby," the public began to take notice. According to Eugene Garfield, Robert S. Weiss's book *Loneliness: The experience of emotional and social isolation* (published in 1973) was the first to bring the subject of loneliness to the attention of scientists. Studies on loneliness had mostly focused on the elderly before to Weiss's article. There have been thousands of studies on college student loneliness since Weiss's research spurred the establishment of the UCLA Loneliness Scale in 1978 (Kim 2021). The release of "Eleanor Rigby" led to a greater understanding of isolation among the general population. By 2018, many nations, including the UK, Denmark, and Australia, had begun government-backed efforts to address the issue of loneliness in their respective populations.

2.10 The main signs and symptoms of chronic loneliness

Individuals and their environments profoundly influence the manifestations and indications of chronic loneliness. The following symptoms are indicative of chronic loneliness and can be used to make a diagnosis (Mahone 2020):

Inability to form meaningful relationships with other people. It's possible to have shallow relationships even with close relatives and friends. The distance between you and the other person appears endless and unlikely to close anytime soon.

The friendships don't feel particularly close or "excellent." Although you have some friends of a sort, you feel that you don't really have anyone who "gets" you.

Constant loneliness that won't go away no matter how many people you're with or how many places you go. Even though they may be in the company of many others, guests at a party may not feel particularly close to one another. Working alone can be isolating. This is true whether you're on a bus, train, or a crowded street. You may as well be in an impenetrable bubble.

Self-doubt and insecurity on an individual level. Do you ever feel like you're not measuring up? In the long run, these feelings can indicate chronic loneliness.

When you make an attempt to connect with others or reach out to them, they often don't return the favor.

Feeling tired and uninterested in interacting with others. When you're feeling lonely and alone, it can be exhausting to make an effort to connect with others. If left untreated, fatigue can lead to a host of health problems, including trouble sleeping, a weakened immune system, poor eating habits, and more.

2.11 The growing problem of loneliness

A 26% greater risk of premature death has been related to a syndrome that causes a person to be persistently irritated, depressed, and focused on oneself. The number of persons severely afflicted by this sickness is estimated to be one in every twelve in the industrialized world, and it is expected to keep rising. It can spread from person to person, regardless of factors such as socioeconomic status, educational attainment, gender, or race (Cacioppo *et al.* 2015). The prevalence of the disease among the general population is responsible for the condition's effects, rather than any particular trait shared by a subset of the population. Holt-Lunstad and Smith (2016) found that loneliness affects approximately one in five people worldwide. Loneliness is becoming more of a public health issue, despite being stigmatized, trivialized, or ignored, due to the growing number of elderly people in developed nations, the link between isolation and an increased risk of death, and the negative effects of loneliness observed in both animal models and human

longitudinal studies. Even while most doctors experience this problem, few know how to successfully cure their patients' loneliness (Schiano di Cola 2021).

Factors including being alone a lot, feeling down, being shy, and lacking in social skills have all been linked to loneliness. But what distinguishes loneliness is that it can occur even while a person is in the company of others. Furthermore, human longitudinal studies as well as animal models show that the detrimental effects of loneliness are not attributable to the particular traits of the lonely, but rather, the impact of loneliness on ordinary people (Cole *et al.* 2015). Despite the ineffectiveness of "common sense" treatments (such as social skills training and provisions for social support and social contact), there are more and more community programs, behavioral interventions, and online resources available to address the issue of loneliness (Masi *et al.* 2011).

If the medical community is serious about tackling loneliness as a public health issue, it will need all hands on deck (Cacioppo *et al.* 2014).

2.12. Health risk behaviors

High school graduation is often considered the first big life transition because of the many changes that follow. At this period, many people start engaging in risky behaviors for the first time, heightening the significance of health education and awareness campaigns. The transition into adulthood is associated with a dramatic decrease in health-promoting behaviors, such as regular exercise and a balanced diet (Brown *et al.* 2014), according to a growing body of evidence. Young adults' routines shift as they gain independence.

❖ Dietary behavior

Gaining weight is a common problem for college students because this is a time in their lives when they are adjusting to new routines and gaining the freedom to make their own decisions about what they eat. Gan *et al.* (2011) found that these populations are at a higher risk of engaging in poor eating behaviors that result in insufficient nutritional intake. Some examples of such practices include skipping breakfast, eating less fruits and

vegetables, and consuming more fried foods (Mantzios *et al.* 2019). Other factors that contribute to weight increase include insufficient physical activity, poor time management, and an increasing level of stress due to schoolwork (Yun *et al.* 2018).

❖ **BMI**

The transition to a new setting, such as college, might aggravate feelings of isolation. Loneliness among college students has increased dramatically over the past decade, according to the National College Health Assessment. In addition, 44% of U.S. college students in a 2021 study identified as overweight or obese. There is a dearth of study on the food habits of college students and the impact of obesity among this demographic (Li *et al.* 2022). Loneliness has been linked to unhealthy weight and a lack of physical exercise.

Diet and exercise, two crucial components of student health, are linked to isolation. Poor dietary practices and lack of exercise are major contributors to excess weight and obesity (Lauder *et al.* 2006). Loneliness has been shown to predict both unhealthy weight gain and a lack of physical activity in a number of studies, both cross-sectional and longitudinal. Students who reported feeling lonely had lower levels of confidence in their ability to engage in physical activity, and vice versa (Ogunbode *et al.* 2011). These studies only give circumstantial evidence for the link between loneliness and unhealthy body weight because of a lack of information on food patterns. Little is known about the effects of isolation on eating habits, despite their potential significance in the rise of obesity and overweight among college students (Jiang *et al.* 2022).

❖ **Physical activity**

Students in colleges and universities may be at increased risk for sedentary behavior because so much of their campus day is spent sitting still in lectures and classrooms. However, young adults are generally healthy, and many organizations dedicated to the well-being of students make it easy for their pupils to participate in a wide range of physical pursuits. According to research, however, college students are actually quite active and very sedentary (Fountainaine *et al.* 2011). However, the vast majority of research

in this area has been done on undergraduate students, with a particular emphasis on the period of transition between the teenage and adult years. There is less information regarding how the age of a student body affects the correlation between physical activity and body mass index. However, few studies have looked at whether or not college students' exercise levels have altered over the past decade, and whether or not that may have anything to do with the epidemic of overweight and obesity. Because sedentary behavior in this age group may represent a continual snowballing risk for the development of bad health, it may be especially crucial to expand our knowledge on these issues in college populations (Afzal *et al.* 2022).

❖ **Mental health**

Transitioning from high school to college can be challenging, and this can lead to mental health issues (Mohammed and Memmedova 2023) for many students. Wang (2005) found strong correlations between college life and a variety of common mental health issues. These included sadness, anxiety, eating disorders, learning difficulties, and self-harm.

In 2020, a worldwide outbreak of COVID-19 afflicted students all over the world. Because of this, schools had to close, face-to-face instruction had to be limited, and sporting and social events had to be postponed. The only places that students could go were their dorms or their parents' houses. It became more difficult for students to meet others who shared their passions and interests (Buote *et al.* 2007). Students and young people in the United Kingdom and the United States had greater levels of loneliness and psychological suffering than the general population did during the first lockdown (McGinty *et al.* 2020). Tang *et al.* (2022) found that many people reported suffering mental health issues. It was found that people between the ages of 18 and 24 were nearly three times as likely to have experienced loneliness 'more often than typical' than those between the ages of 65 and 74 in the United Kingdom (Royal Society for Public Health 2020).

❖ **Violence and unintentional injuries**

Depression, anxiety, and stress are just some of the mental health problems that have been linked to loneliness among college students, and they can lead to both purposeful and unintended harm. Continue our investigation:

❖ **Violence**

The probability of aggressive conduct or engagement in violent events may rise when someone is lonely because of the compounding effects of frustration, anger, and isolation. Students who have trouble connecting with others may find it difficult to form meaningful friendships, which can lead to friction and even hazardous behavior. While not every lone student with display aggressive inclinations, there is a higher chance of violence when loneliness is combined with other risk factors.

Among college students, loneliness can play a role in both purposeful and unintentional injuries. When people are lonely and disconnected from others, they are more likely to take unnecessary risks. For example, feelings of isolation have been linked to increased use of drugs and alcohol, which can lead to impaired decision making and an increased chance of injury. Lonely students also may be more likely to engage in risky behaviors, such as not getting enough sleep, eating poorly, or not paying attention to their surroundings, all of which can increase the likelihood of suffering an unintended injury.

❖ **Tobacco use**

Cigarette smoking is another major problem that poses a serious risk to public health. In a 2006 study, Nichter *et al.* found that college students have a higher chance of beginning to smoke cigarettes and of making the transition from occasional to regular smoking. According to previous studies conducted in Iran (Shamsi Meymandi *et al.* 2010), the lifetime prevalence and current rate of tobacco smoking among Iranian university students is as high as 31% (51% for men and 15% for females). In addition, studies have shown that university students in Iran start smoking at a median age of 15.9 (Nakhaee *et al.* 2011). Therefore, universities need to focus more on this problem. Subsequent

research has looked into the correlation between cigarette smoking and a wide variety of factors, including but not limited to personality traits, mental health issues, and lack of social support, as well as the influence of peers (Oksuz *et al.* 2007).



3. MATERIALS AND METHOD

3.1 Design of the study

It is cross-sectional and descriptive research.

3.2 Participants and setting of the study

Data were collected from students at Kirkuk University / Iraq. A purposeful random sample of 240 students was taken. Power package G software was used for power analysis. As a result of power analysis, it was found that the power was 0.99 when the effect size, P , and sample size were 3.0, 0.05, and 240.

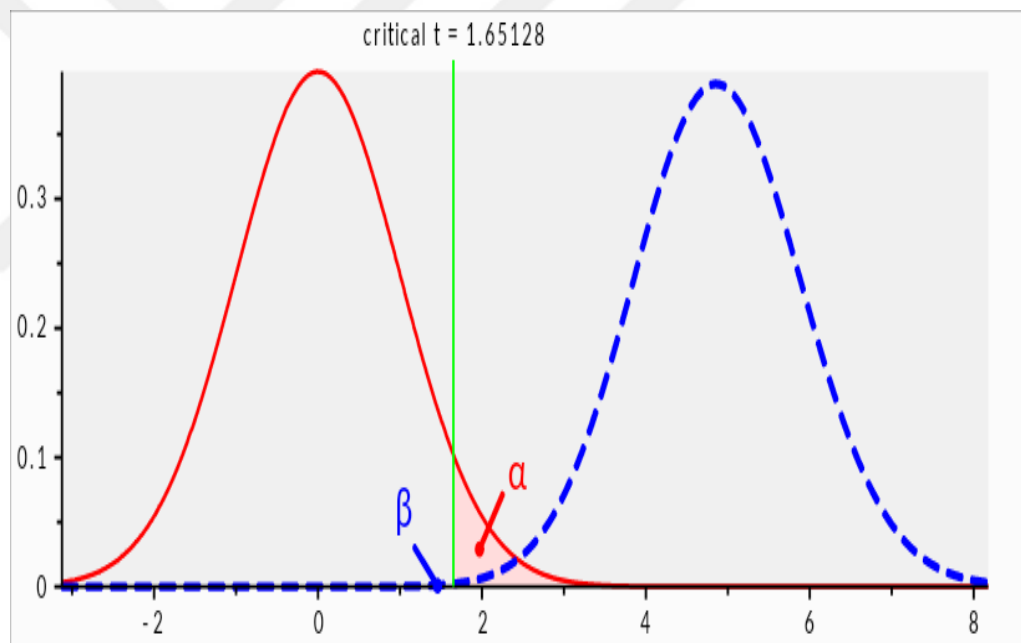


Figure 3.1 G- power analysis (critical t)

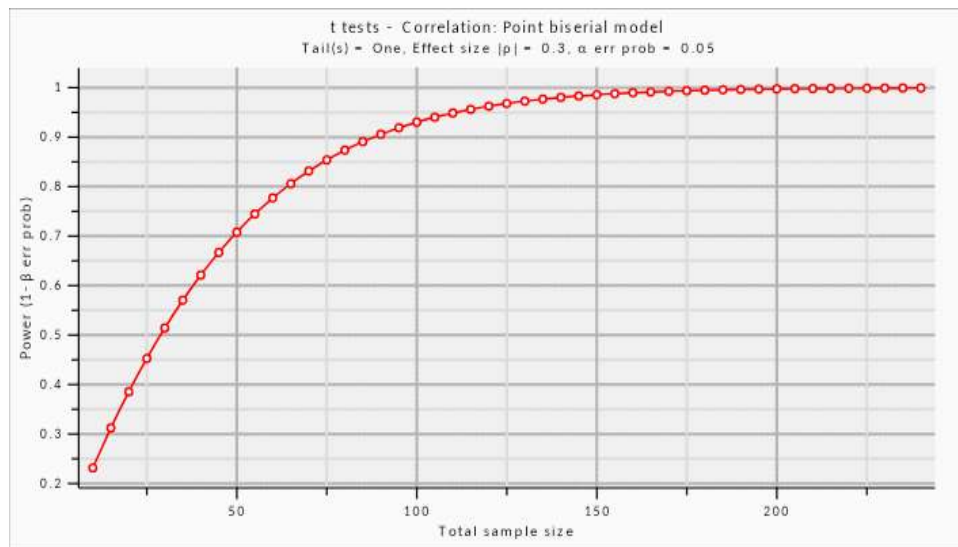


Figure 3.2 G- power analysis (Point biserial model)

3.2.1 The inclusion criteria

The study sample includes university students, and they are picked through non-probability sampling and all participants speak and understand Arabic.

3.2.2 The exclusion criteria

Students with psychiatric or cognitive disorders, students with major health problems, and those who refused to give consent were also excluded.

3.3 Data collection

The data was collected period between November 15, 2022, to January 15, 2023 after the researcher explains the study and objectives. The method was interview face-to-face used to collect data from the students at the University of Kirkuk / Iraq. Through the questions that are directed to the students for 15 minutes, they answer them accurately and on their own without the researcher's interference in their answers and without leaving any questions.

3.4 Research instrument

There were 3 parts of the data collecting tools used: The sociodemographic form, The Global Student Health Survey (GSHS), and The Loneliness Scale (Appendix A).

3.4.1 Part one: Sociodemographic and clinical characteristics form

Including age, gender, stage, father education, mother education, and monthly income.

3.4.2 Part two: The Global Student Health Survey (GSHS)

This tool was developed by the World Health Organization (WHO) and the Centers for Disease Control and Prevention in collaboration with UNICEF, UNESCO, and UNAIDS to be shared by all countries. The Arabic version of the 2011 unique Egypt Global School-Based Student Health Survey (GSHS) questionnaire was used. This GSHS is a self-administered questionnaire designed for measuring the most important health risk behaviors and protective factors related to the leading causes of mortality and morbidity among students. It includes 57 questions representing eight domains. These domains are hygiene (7 questions on brushing teeth, washing hands, etc.), dietary behaviors (11 questions on eating breakfast, fruits, vegetables), BMI (3 questions on weight situation) physical activity (4 questions on practicing physical activity, benefits of physical activity, and sitting activities), tobacco use (6 questions on smoking status, quitting, etc.), protective factors (6 questions on school attendance and relationships between student and their parents), violence and unintentional injury (9 questions on frequency of physical attacks and physical fights and seriously injured before), HIV infection or AIDS (4 questions on awareness about HIV/AIDS, receiving any education about HIV/AIDS), and mental health (5 questions on presence of close friends, sleep disturbance, or eating habits due to worries. The answer to these questions will be (“Always”, “Sometimes”, “Rarely”, “Never “). An increase in the score obtained from the scale means that the level of health risk behavior increases.

This scale first used by Tawfik and Farag (2018) in Iraq. Egypt is an Islamic country with specific traditional habits, culture, and behaviors. Four questions on HIV infection or AIDS that were found to be culturally sensitive were not included in the study tool. The researchers discarded two items on height and weight, which are included in the dietary behaviors domain, as the majority of participants did not self-report height or weight and were also weighed and measured by the researchers. The version of the GSHS questionnaire included in this study had 51 items. The Cronbach Alpha coefficient of this scale in the Tawfik and Farag's (2018) study was 0.89. In this study, we will not use the four questions on HIV infection or AIDS as in study conducted by Tawfik and Farag (2018). However, we will refer to the students' self-reports on height and weight measures, with the thought that there would be no problem in obtaining data about height and weight from university students.

3.4.3 Part three: The loneliness scale.

The Arabic version of UCLA Loneliness Scale (Version 3, Russell, 1996) adapted by Daswqee (1998) was used in this study. The UCLA loneliness scale is a 20 item Likert-type scale in which responses ranged from 1 (never) to 4 (always). The scale includes 9 positively worded items (1, 5, 6, 9, 10, 15, 16, 19, and 20) and 11 negatively worded items (2, 3, 4, 7, 8, 11, 12, 13, 14, 17, and 18) randomly distributed throughout the scale. The data generated from the scale were processed using weighted means to reflect the extent of loneliness experienced by the respondents. The positively stated items were reverse-scored and the weighted means were interpreted using an interval scale with qualitative equivalents:

FOR ITEMS POSITIVELY STATED	FOR ITEMS NEGATIVELY STATED	MEAN RANGE
Never (N)	Always (A)	3.25 – 4.00
Rarely (R)	Sometimes (S)	2.50 – 3.24
Sometimes (S)	Rarely (R)	1.75 – 2.49
Always (A)	Never (N)	1.00 – 1.74

The UCLA loneliness scale was particularly adopted in the investigation because the scale's reliability was found to be high with alpha coefficients ranging between 0.89 to 0.94 for samples of students, nurses, teachers, and elderly (Russell, 1996). Test-retest reliability in adult samples was likewise high (0.73). An increase in the score obtained from the scale means that the level of loneliness increases.

3.5 The ethical considerations

The approval of the University of Kirkuk / Training and Human Development Center was obtained pursuant to University Decision No. (4/3/264) dated (29.1) 2023 (Appendix B). Consent was obtained from all students before sample collection.

3.6 Data analysis

Data were analyzed using the statistical package for social sciences (SPSS) for Windows version 26. The descriptive statistical measures of frequency, percentage, mean, and standard deviation were used to describe the subjects' sociodemographic and clinical characteristics form. The Spearman correlation, Mann-Whitney U Test, and Kruskal Wallis Test were also used.

4. RESULTS

Table 4.1 Test of normality

SCALES	KOLMOGOROV-SMIRNOV ^a			SHAPIRO-WILK		
	Statistic	Df	Sig.	Statistic	df	Sig.
Global Student Health Survey	.137	240	.000	.952	240	.000
Loneliness	.098	240	.000	.966	240	.000

The result in this table shows that there is highly significant difference in Global Student Health Survey and Loneliness at p value (0.000). This finding indicated that the data are not normally distributed.

Table 4.2 Distribution of the students' sociodemographic characteristics

VARIABLES	FREQUENCY	PERCENTAGE
Age		
18-20 years	29	12.1
21-25 years	191	79.6
26-30 years	20	8.3
Mean and standard deviation	22.625±3.149	
Gender		
Female	128	53.3
Male	112	46.7
Stage		
First	21	8.8
Second	42	17.5
Third	19	7.9
Fourth	158	65.8
Father education		
Illiterate	54	22.5
Primary school	48	20.0
Secondary school	59	24.6
University graduate	79	32.9
Mother education		
Illiterate	42	17.5
Primary school	82	34.2
Secondary school	64	26.7
University graduate	52	21.7
Monthly income		
More than expenses	64	26.7
Income equal to expenses	129	53.8
Less than expenses	47	19.6
Total	240	100

In this table the finding shows that 79.6% of students at age (21-25) years and at mean and standard deviation (22.625 ± 3.149), 53.3% of them were females, 65.8% at fourth stage, 32.9% of them had university graduate of father education, 34.2% of them had primary school education of mothers, 53.8% of them had income equal to expenses.

Table 4.3 Distribution body mass index of the students

BODY MASS INDEX	FREQUENCY	PERCENTAGE
Normal weight	100	41.7
Overweight	65	27.1
Obese	75	31.3
Total	240	100

Regarding to students' body mass index, 41.7% of students had normal weight, followed by 31.3% obese and then 27.1% overweight.

Table 4.4 Distribution the students' response to the healthy behavior and loneliness by mean, median, standard deviation, minimum, maximum.

SCALES	MEAN	MEDIAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Dietary behavior	30.78	29.00	6.353	21	44
Physical activity	11.76	12.00	2.901	4	16
Hygiene	23.49	24.00	3.685	7	28
Mental health	14.00	14.00	3.961	5	20
Violence and unintentional injuries	19.22	16.00	9.226	9	36
Tobacco use	11.91	10.00	5.948	6	24
Protective factors	14.91	15.00	4.606	6	24
Global Student Health Survey	126.08	119.00	26.071	69	192
Loneliness	58.85	58.00	12.233	24	80

The finding in this table revealed the mean and standard deviation of student according to sub domain of Global Student Health Survey and Loneliness. They had (30.78±6.353) dietary behavior, (11.76±2.901) physical activity, (23.49±3.685) hygiene, (14±3.961) mental health, (19.22±9.226) violence and unintentional injuries, (11.91±5.948) tobacco use, and (14.91±4.606) protective factors. Finally, they had (126.08±26.071) Global Student Health Survey, and (58.85±12.233) loneliness.

Table 4.5 Correlation between global student health survey and loneliness

SCALES		GLOBAL STUDENT HEALTH SURVEY	LONELINESS
Global Student Health Survey	Pearson Correlation	1	.708**
	Sig. (2-tailed)		.000
	N	240	240
Loneliness	Pearson Correlation	.708**	1
	Sig. (2-tailed)	.000	
	N	240	240

** Correlation is significant at the 0.01 level (2-tailed).

There is positive highly significant correlation between Global Student Health Survey and Loneliness at p value (0.000).

Table 4.6 Difference between students' sociodemographic characteristics and Global Student Health Survey

SCALE	AGE	N	AVERAGE	SD	KWX ²	P
GSHS	18-20 years	29	141.14	33.427	5.599	0.061
	21-25 years	191	124.23	25.017		
	26-30 years	20	121.90	15.684		
Scale	Gender	N	Average	SD	Mann-Whitney U	p
GSHS	Female	128	115.52	17.545	3737	0.000
	Male	112	138.13	28.918		
Scale	Stage	N	Average	SD	KWX ²	p
GSHS	First	21	162.00	25.355	51.883	0.000
	Second	42	134.40	28.313		
	Third	19	139.47	19.839		
	Fourth	158	117.47	20.274		
Scale	Father education	N	Average	SD	KWX ²	p
GSHS	Illiterate	54	150.52	30.569	51.584	0.000
	Primary school	48	117.81	24.231		
	Secondary school	59	122.07	17.041		
	University graduate	79	117.38	18.266		
Scale	Mother education	N	Average	SD	KWX ²	p
GSHS	Illiterate	42	118.81	24.835	14.997	0.002
	Primary school	82	126.12	21.758		
	Secondary school	64	137.11	33.328		
	University graduate	52	118.29	17.534		
Scale	Monthly income	N	Average	SD	KWX ²	p
GSHS	More than expenses	64	129.20	26.717	22.563	0.000
	Income equal to expenses	129	119.60	24.186		
	Less than expenses	47	139.57	24.678		
Scale	Body mass index	N	Average	SD	KWX ²	p
GSHS	Normal weight	100	110.58	14.682	21.417	0.000
	Overweight	65	128.00	21.041		
	Obese	75	145.07	28.823		

GSHS=Global Student Health Survey, SD= standard deviation, KWX²=Kruskal Wallis Test, p= p value

According, male's GSHS scores are significantly higher than female's at p value (0.000). When the grade levels of the students are examined, the student in the first stage have high score of GSHS than other stages at p value (0.000). Regarding to fathers education, students whom had illiterate fathers had high score of GSHS than other level of education at p value (0.000). According to mothers education, students with mothers had secondary school education had high score of GSHS than other level of education at p value (0.002). Students with less than expenses monthly income had high score of GSHS than others at p value (0.000). Finally, obese students had had high score of GSHS than others at p value (0.000).

Table 4.7 Difference between students' sociodemographic characteristics and loneliness

SCALE	AGE	N	AVERAGE	SD	KWX ²	P
Loneliness	18-20 years	29	63.69	10.32	5.526	0.063
	21-25 years	191	58.24	12.74		
	26-30 years	20	57.7	7.83		
Scale	Gender	N	Average	SD	Mann-Whitney U	p
Loneliness	Female	128	55.98	10.12	5552	0.003
	Male	112	62.12	13.59		
Scale	Stage	N	Average	SD	KWX ²	p
Loneliness	First	21	75.43	10.27	46.42	0.000
	Second	42	61.60	11.01		
	Third	19	64.53	10.59		
	Fourth	158	55.23	10.67		
Scale	Father education	N	Average	SD	KWX ²	p
Loneliness	Illiterate	54	67.85	14.09	29.95	0.000
	Primary school	48	56.12	11.68		
	Secondary school	59	55.10	11.03		
	University graduate	79	57.15	8.74		
Scale	Mother education	N	Average	SD	KWX ²	p
Loneliness	Illiterate	42	54.83	12.19	8.559	0.036
	Primary school	82	61.60	11.62		
	Secondary school	64	60.04	13.63		
	University graduate	52	56.26	10.18		
Scale	Monthly income	N	Average	SD	KWX ²	p
Loneliness	More than expenses	64	61.76	11.17	11.234	0.004
	Income equal to expenses	129	56.55	11.91		
	Less than expenses	47	61.17	13.40		
Scale	Body mass index	N	Average	SD	KWX ²	p
Loneliness	Normal weight	100	54.23	10.12	4.488	0.034
	Overweight	65	58.12	10.00		
	Obese	75	65.64	13.55		

SD= standard deviation, KW²=Kruskal Wallis Test, p= p value

According, male's loneliness scores are significantly higher than female's at p value (0.000). When the grade levels of the students are examined, the student in the first stage have high score of loneliness than other stages at p value (0.000). Regarding to fathers education, students whom had illeterate fathers had high score of loneliness than other level of education at p value (0.000). According to mothers education, students with mothers had primary school education had high score of loneliness than other level of education at p value (0.036). At p value (0.004), students whose monthly income exceeded their expenses scored higher on the loneliness scale than other students. Lastly, at p value (0.034), obese students scored higher on the loneliness scale than other students.

5. DISCUSSION

Less than half of the students in this research were of normal weight, with 1 in 5 being obese. More than half of students in a different cross-sectional survey were at a healthy weight, whereas one-quarter were overweight (Shahzad *et al.* 2019). A growing number of students are overweight, according to a recent study (Grasdalsmoe *et al.* 2019). Consistent with our findings, Marcus *et al.* (2020) found that just a small percentage of students were fat, whereas 20% were overweight. Another descriptive study (Jha *et al.* 2021) found that the vast majority of pupils were of a healthy weight. Twenty-one percent of students were found to have an overweight or obese body mass index by Ismail *et al.* (2022). Moreover, half of the sample had a normal body mass index (BMI), and one-quarter had an overweight or obese BMI, according to the results of a cross-sectional study (Ghazawy *et al.* 2022). Consistent with the current study were these others. This result is because energy intake exceeds energy expenditure. The researcher believes that obesity is a disease of the age, as well as the widespread of restaurants and fast food in the country, which increases in the rate of obesity in the country and the lack of control overweight. The well-being of students depends on the existence of a safe and encouraging community on campus. This involves making sure there is somewhere clean and safe to play, food that is healthy for people to eat, and places to exercise. The emotional well-being of pupils can also benefit from efforts to foster a sense of community and belonging (Mayer and Frantz 2004).

The results of this study showed that students' food habits are about average. In other words, the students in this study had moderate dietary habits, consuming regularly spaced meals and snacks, fruits, vegetables, eggs, and milk. This finding, showing that people don't stick to a diet plan that works for them at every stage of life, is corroborated by research by Shahzad *et al.* (2019). The researcher seen that most people rely on ready-made food and fast food to shorten their time and preoccupy themselves with their work. Therefore, they avoid preparing healthy food at home and eating fruits and vegetables, which help in equipping the body with the nutritional ingredients that the body needs. This result is consistent with others. The majority of college students have unhealthy eating habits, according to a study by Yun *et al.* (2018). More than half of those surveyed

reported never eating breakfast. Snacking frequently, eating fried food at least three times a week, and not getting enough fruits and vegetables each day were all very typical. Descriptive research found that most students fell short of the daily fruit and vegetable intake guidelines (Alkhalidy *et al.* 2021). According to research by Al-Awwad *et al.* (2021), a poor diet and an unhealthy lifestyle are closely related. Moreover, half of the sample in Ismail *et al.* (2022) study didn't have breakfast every day, and only 20% ate fruits and vegetables on a daily basis. On the other hand, most students in another research claimed to eat healthily, in that they made their own food and ate regularly. Most pupils said they understood what it meant to eat healthily (Mogeni and Ouma 2022). The researcher believes that a difference in countries as well as a difference in the cultures of students between Iraq and other countries leads to a difference in results between the current study and other studies.

Students in this study were found to engage in a relatively healthy amount of physical activity. Yun *et al.* (2018) discovered that one-fourth of students had exercised at least thrice-weekly. More than half of students regularly exercised at least three times each week, according to research by Sogari *et al.* (2018). Researchers Alkhalidy *et al.* (2021) discovered that most pupils were physically active enough. More than half of pupils, according to research by Ismail *et al.* (2022), participate in regular physical activity. Most students, according to a study by Mogeni and Ouma (2022), got frequent physical activity. These findings are partially consistent with the current research. In our study, although the physical activity level of the students was above the average, it was not at the desired level. This indicates that the role of universities in increasing physical activity among students is important. Colleges and universities may help students stay physically fit by offering a variety of sports and fitness programs, as well as by encouraging students to lead physically active lifestyles. The risk of chronic diseases can be lowered, fitness levels can be increased, and sedentary behavior can be combated by encouraging physical exercise. When it comes to spreading the word about the importance of staying healthy and taking preventative steps, educational institutions may play a pivotal role. Students can be taught about topics including healthy eating, personal cleanliness, sexual health, and disease prevention through health campaigns, seminars, and workshops (Sassoon 2008).

Students in this survey were found to have generally high standards of personal cleanliness. Because they know that they are representing their university to the outside world, most college students take good care of their looks and cleanliness. Al-Rifaa'i *et al.* (2018) reported similar results, concluding that college students practiced generally high standards of personal cleanliness. However, Kabir *et al.* (2021) discovered that students' attention to personal cleanliness was shockingly low. Iraq is an Islamic country, and Islam encourages personal hygiene at prayer times. The study of Kabir *et al.* (2021) was conducted in Bangladesh, and there may be multiple religions and cultures in Bangladesh about Iraq, so it differed from our study.

The results of this study suggested that the participants' mental health was partially satisfactory. These other investigations support the results of the current study. The majority of the participants were at risk for mental health problem, according to the average of mental health scores, as found by Seidi (2020). It was reported by Abrams (2022) that "more than 60% of college students met the criteria for at least one mental health problem." Another study confirms the high proportion of mental health problems among college students, reporting that 53.9% of college students experience moderate to severe depression, 66.2% of college students experience anxiety, and 44.6% of college students experience stress. The researcher thinks that university students are in a transitional stage from adolescence to adulthood, so many of them may be clinging to adolescence and have not achieved their identity, so they may suffer from a number of problems and psychological pressures. It is also possible that most students experience mental health issues, because of the stress of schoolwork and the novelty of college life.

Stressful and time-consuming, college life calls for mental health services. Counseling centers and other mental health resources are two examples of how schools may assist students deal with stress, anxiety, and other mental health difficulties. When necessary, these services can offer assistance, direction, and recommendations to specialist experts. Students' health-related behaviors might be influenced by their peers through peer education. In order to combat issues like substance misuse, unsafe sex practices, mental health, and unhealthy relationships, schools can benefit from encouraging peer education efforts (Rydgren and Sofi 2011).

The results of this study show that violent and unintended injuries are uncommon. According to Yang *et al.* (2020), violence and accidental injuries among students are uncommon. Similar findings were found in this investigation. The society in Iraq, and in the city of Kirkuk in particular, is aware and educated, so students are not exposed to violence. The media also plays an important role in raising awareness and providing guidance about violence of all kinds in society. It is important to create a safe environment to overcome the violence and unintentional injuries (Stea *et al.* 2002). Accidents can be avoided to some extent by stressing the importance of safety measures and encouraging students to use them (such as wearing seat belts, engaging in safe sex, and adhering to other safety recommendations).

The results of the current investigation showed that students' smoking scores were not very high. However, many college students engage in an inward quest for self-discovery. As a result, individuals resort to unhealthy habits like smoking to feel content. According to the directives of the Iraqi Ministry of Health, which plays an important role in combating smoking, and spreading health messages during seminars and lectures in health and education institutions to reduce the spread of smoking and reduce the diseases resulting from it. One-third of the participants in the study were smokers, according to Al-Awwad *et al.* (2021). According to a different study (Nasser and Zhang 2019), one-third of college students smoked during their time in college. Our research confirms these results. In contrast to the present study, Wamamili *et al.* (2019) observed that 50% of college students smoked during their time in college. People may be more likely to engage in health risky behaviors like smoking when they are not supervised by an adult and begin to believe that these activities are typical for adults. However, health behaviors among university students can also be affected by group dynamics. Health teachers should be sensitive to group dynamics within students rather than focusing on individual risky behaviors alone. At the same time, researchers should consider the larger lifestyle behavioral patterns that are beginning to emerge during this period (Rahn *et al.* 2016).

In summary, the results of this investigation showed that pupils' health is moderately satisfactory. Similar research in Lebanon (Salameh *et al.* 2014) found that many college students, especially those attending private institutions, engage in unhealthy practices.

Students who were more likely to engage in various health-risk behaviors also reported lower mental health, especially in relation to stress, according to research by Kwan *et al.* (2016). College students engage in a number of behaviors that put their health at risk, according to research by Safaa *et al.* (2016). These include bad dieting practices, poor food choices, and tobacco use. The vast majority of college kids regularly eat sugary drinks and snacks/fast food. Approximately half had excessive levels of salt in their diets and ate less fruit and vegetables than was suggested. Around one-third of the population was assumed to be physically inactive. Some people were mentally unwell, alcoholic, and smokers (Rahman *et al.* 2022). The results of the current investigation are supported by these findings. Some schools have health clinics or wellness facilities on campus for students who need immediate medical attention. Primary care, immunizations, tests, and treatment for common illnesses are all possible through these programs. The health and happiness of students can benefit from convenient access to medical care. Schools, the government, and other organizations with a stake in Iraqi kids' well-being must work together to ensure that their students' health is a top priority. Iraq can aid in the all-around growth of its student body by providing for their mental and bodily health in the classroom (Kwan *et al.* 2016).

Results from this study indicate that isolation among college students is rather widespread. Half of students experience loneliness, according to research by Dagne and Dagne (2019). Students reported the highest levels of loneliness, according to research by Hysing *et al.* (2020). Most students, according to Bachi and Kadhim (2021), experience some degree of loneliness. The findings of another study (Weber *et al.* 2022) showed that students experienced high levels of loneliness. Loneliness was reported to be pervasive among students by Zahedi *et al.* (2022). Similar to the current study are these other investigations. Some students may have a hard time making friends, which may explain why they feel alone. In addition, university years are a period when new relationships are established, and students may feel lonely until these relationships are formed. On the other hand, students' feelings of loneliness can be constant in the rapidly changing life. Future longitudinal studies may contribute to clarifying this point.

The results of a worldwide assessment of college students' health show an association between isolation and health. This study's results were consistent with some other studies. According to Stickley *et al.* (2014), students who feel lonely are more likely to engage in risky behaviors. Loneliness and its connections to negative mental health, substance abuse, aggression, and other health risk behaviors were recognized and discussed by Peltzer and Pengpid (2017). The researcher thinks that poor health status of student which include unhealthy diet, sedantry behavior, exposure to injury and violence that effect on human to achive their identity and social relationship with other. Poor psychosocial status of human makes individual impaired social relationship, unsatisfying social relationships effect on student safe and secure social surroundings to survive and lead to loneliness.

Some strategies can help reduce mental problems among alone college students. First is to provide access to mental health support resources. Students can learn to cope with feelings of isolation and find help when they need it with the help of easily accessible mental health services on campus and increased awareness of available resources. The second is to increase public understanding of mental health. One way to help students who may be struggling is to encourage open discussions about mental health and the difficulties of feeling alone. Increasing students' access to peer support groups, counseling services, and mentoring programs can help them meet new people, form meaningful relationships, and learn to cope with feelings of isolation. A sense of belonging can also be developed by creating inclusive environments, establishing social relationships, and organizing campus events that encourage student participation.

The study finding of the present study shows that Average GSHS scores vary widely by gender. Our research was supported by the findings of Safaa *et al.* (2016), who discovered a statistically significant link between students' gender and low-risk behaviors.

The study finding of the present study shows that Average GSHS scores vary widely by stage. Our research was supported by the findings of Safaa *et al.* (2016), who discovered a statistically significant link between students' stage and low-risk behaviors. Also, the findings of Vakili *et al.* (2016) shows that academic stage of students had significant relationship with GSHS.

In the present study there is significant relation between GSHS and parent education. In general, higher levels of parental education have been associated with better health outcomes and health behaviors among students (Suhrcke and de Paz Nieves 2011, Cutler and Lleras-Muney 2012). This might include aspects such as higher physical activity levels, healthier eating habits, lower rates of substance use, and improved mental health (Chen *et al.* 2020).

In the present study, it was found that there is a significant variation in Average Global School-based Student Health Survey (GSHS) scores based on monthly income. Poor monthly income effects on students' healthy behavior. It can lead to poor feeding, increase of diseases, effect on student academic status. Also, may increase risky behavior between them (Dungog *et al.* 2021).

The study finding of the present study shows that Average GSHS scores vary widely by BMI. Badr *et al.* (2017) stated that there is association between BMI and health-related behaviors or outcomes measured by surveys similar to the GSHS. One possible finding could be that individuals with higher BMI values tend to report lower levels of physical activity, unhealthy dietary habits, and higher rates of mental health issues, as compared to those with lower BMI values. This could suggest that there is a significant difference in the GSHS scores between individuals with different BMI categories.

Regarding to relation between loneliness score and gender. The average level of loneliness significantly varies gender. Bachi and Kadhim (2021) discovered an important correlation between loneliness and both sexes. The present study's findings are consistent with those of these other investigations.

The average level of loneliness significantly varies stage. Bachi and Kadhim (2021) discovered an important correlation between loneliness and developmental stage. Loneliness was discovered to have a highly significant relationship to pupils' developmental stage by Zahedi *et al.* (2022). The present study's findings are consistent with those of these other investigations.

The average level of loneliness varies significantly parental education. Coplan *et al.* (2022) in their studies found that there are significant differences in loneliness levels based on parent education. Higher levels of maternal education have been associated with lower levels of loneliness in some studies. This could be due to various factors, including improved social support, better communication skills within the family, or access to more resources and opportunities that can alleviate feelings of loneliness.

The average level of loneliness varies significantly by monthly income. Alaika *et al.* (2020) stated that lower income levels have been associated with higher levels of loneliness. Low income can increase loneliness by leading to reduced access to social resources, limited opportunities for social inclusion, and increased stress associated with financial difficulties.

The average level of loneliness varies significantly by body mass index. The finding in similar study indicated that increase in BMI effect on student mental status. Also, it may increase loneliness among students (Jiang *et al.* 2019).

When today's college and university students become tomorrow's parents and community leaders, their lifestyle choices will have a lasting impact on the health of their children and grandchildren. Students' health and happiness are profoundly influenced by the educational system. With almost 6,000 schools offering higher education in Iraq, the effects on people's health might be significant (Ann Allender *et al.* 2013).

6. CONCLUSIONS AND RECOMMENDATIONS

❖ Conclusion

- More than half of students were found to be female, between the ages of 21 and 25, in the fourth year of college, with majority having fathers with tertiary education and moms with primary education and a moderate monthly salary.
- The students were either normal weight or overweight predominated.
- Students' protective characteristics are average, including their eating habits, levels of physical activity, levels of cleanliness, levels of mental health, their experiences with violence and accidental injuries, and their rates of smoking.
- Current study's result is consistent with the results of a worldwide assessment of college students' health showing an association between isolation and health.
- The median GSHS scores vary significantly by gender, stage, parental education level, maternal education level, monthly income, and body mass index.
- The average level of loneliness varies significantly by gender, stage, parental education, monthly income, and body mass index.

❖ Recommendation

The research urged that

- They should be urged to have well-balanced meals and snacks. As a snack, try some raw fruits or veggies. Dietary fiber intake should be boosted, while salt intake should be reduced. Soak up some liquid. Avoid sugary beverages if you can.
- College students should get at least two hours and 30 minutes a week of moderate-intensity exercise and participate in muscle-strengthening activities at least twice a week.
- Relationship building with neighbors and fellow college students is strongly encouraged.
- Picnics and parties can help people overcome negative emotions and social isolation.
- Explain to them the drawbacks of bad habits like smoking and drinking.
- Help them learn how to unwind and calm down when they're feeling stressed.
- Take part in educational opportunities that help you grow as a person, acquire new abilities, and broaden your knowledge base.
- Benefits accrue to the individual and the group as a whole via shared experiences like training camps, scientific expeditions, and vacations.
- Gaining knowledge and abilities in all areas of life by participation in cutting-edge technical courses, such as computer training and cutting-edge teaching tools.

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APPENDICES

APPENDIX A1. English version of the questionnaire used in the study

APPENDIX A2. Table distribution of students' response to GSHS

APPENDIX A3. Arabic version of the questionnaire used in the study

APPENDIX B. The approval of ethics committee of Scientific Research from the Ministry of Higher Education and Scientific Research / University of Kirkuk / Facilitate the task. (Appendix B. Arabic and Turkish Language).



APPENDIX A1. English version of the questionnaire used in the study

Part one: demographic characteristics

Age:

Gender:

1) Female

2) Male

Stage:

1) First stage

2) Second stage

3) Third stage

4) Fourth stage

Father education:

1) Illiterate

2) Primary school graduate

3) Secondary school graduate

4) High school graduate University graduate

Mother education:

1) Illiterate

2) Primary school graduate

3) Secondary school graduate

4) High school graduate University graduate

Monthly income:

1) More than expenses

2) Income equal to expenses

3) Less than expenses

Part two: Global Student Health Survey (GSHS)

Items	Always	Sometimes	Rarely	Never
Dietary behavior				
Went hungry				
Ate breakfast				
Ate fruits				
Ate vegetables				
Drank carbonated soft drinks ≥ 1 time per day				
Ate fast food ≥ 1 time per day				
Ate food from a street-hawkers or peddles ≥ 1 time per day				
Perceived self as underweight				
Perceive self as overweight				
Trying to lose/gain weight				
Weighted and measured				
BMI				
Underweight				
Overweight				
Obese				
Physical activity				
Physically inactive				
Physical education class ≤ 1 day				
Taught benefits of physical activity				
Sitting activities ≥ 5 h/day				
Hygiene				
Brushed teeth				
Wash hands before eating				
Wash hands after toilet/latrine use				
Wash hands with soap				
No available source of clean drinking water at school				
Taught modes of infection with parasitic diseases at school				

Taught how to protect themselves against parasitic infections at school				
Mental health				
Felt lonely				
No close friends				
So worried that could not sleep/could not feel hungry				
Taught healthy ways to manage anger at school				
Taught healthy ways to handle stress at school				
Violence and unintentional Injuries				
Physically attacked ≥ 1 times				
In physical fight ≥ 1 times				
Were seriously injured ≥ 1 times				
Cut wound was the most serious injury				
Fight with other was the major cause of the most serious injury				
The most serious injury occurred on or near road among boys and at home for girls				
Getting seriously injured by hurting themselves by accident				
Bullied ≥ 1 days				
Being hit, kicked, pushed, shoved around, or locked indoors of most often bullied				
Tobacco use				
Smoked first cigarette at age <13 years old				
Current cigarette smoking ≥ 1 day				
Never tried to quit smoking cigarettes				
Used other forms of tobacco such as Shisha ≥ 1 day				
People smoked in their presence ≥ 1 day				
At least one parent or guardian used any form of tobacco				
Protective factors				
Missed classes or school without permission ≥ 10 day				
Most students in school were never or rarely kind and helpful				
Parents rarely or never checked if homework was done				
Parents rarely or never understood your problems and worries				
Parents rarely or never knew what you were doing in your free time				
Parents rarely or never go through your things without your approval				

Part three: Loneliness Scale

Items	Always	Sometimes	Rarely	Never
How often do you feel.....				
“in tune” with the people around you				
that you are part of a group of friends				
you have a lot in common with people around you				
like an outgoing and friendly person				
left out				
that your social relationships are not meaningful				
no one really knows you well				
isolated from others				
Shy				
that people around you are not with you				
that your relations are not meaningful				
that there is no one you can turn to				
Alone				

that you are no longer close to anyone				
your interests are not shared by others				
that there are people you don't feel close to				
that you lack companionship				
that there are people who understand you				
that there are people you can talk to				
that there are people you can turn to				



APPENDIX A2. Table distribution of students' response to GSHS

No.	Items	Response	Frequency	Percent
	Dietary habits			
1	Went hungry	never	34	14.2
		rarely	45	18.8
		sometimes	84	35.0
		always	77	32.1
2	Ate breakfast	never	14	5.8
		rarely	38	15.8
		sometimes	81	33.8
		always	107	44.6
3	Ate fruits	never	12	5.0
		rarely	51	21.3
		sometimes	84	35.0
		always	93	38.8
4	Ate vegetables	never	20	8.3
		rarely	42	17.5
		sometimes	87	36.3
		always	91	37.9
5	Drank carbonated soft drinks ≥ 1 time per day	never	17	7.1
		rarely	73	30.4
		sometimes	80	33.3
		always	70	29.2
6	Ate fast food ≥ 1 time per day	never	12	5.0
		rarely	59	24.6
		sometimes	103	42.9
		always	66	27.5
7	Ate food from a street-hawkers or peddles ≥ 1 time per day	never	35	14.6
		rarely	83	34.6
		sometimes	73	30.4
		always	49	20.4
8	Perceived self as underweight	never	66	27.5
		rarely	45	18.8
		sometimes	71	29.6
		always	58	24.2
9	Perceive self as overweight	never	70	29.2
		rarely	34	14.2
		sometimes	76	31.7
		always	60	25.0
10	Trying to lose/gain weight	never	68	28.3
		rarely	26	10.8
		sometimes	85	35.4
		always	61	25.4

Cont. table

No.	Items	Response	Frequency	Percent
11	Weighted and measured	never	52	21.7
		rarely	27	11.3
		sometimes	103	42.9
		always	58	24.2
Physical activity				
1	Physically inactive	never	29	12.1
		rarely	37	15.4
		sometimes	95	39.6
		always	79	32.9
2	Physical education class ≤ 1 day	never	42	17.5
		rarely	56	23.3
		sometimes	69	28.7
		always	73	30.4
3	Taught benefits of physical activity	never	28	11.7
		rarely	28	11.7
		sometimes	93	38.8
		always	91	37.9
4	Sitting activities ≥ 5 h/day	never	14	5.8
		rarely	47	19.6
		sometimes	86	35.8
		always	93	38.8
Hygiene				
1	Brushed teeth	never	18	7.5
		rarely	13	5.4
		sometimes	67	27.9
		always	142	59.2
2	Wash hands before eating	never	2	.8
		rarely	12	5.0
		sometimes	37	15.4
		always	189	78.8
3	Wash hands after toilet/latrine use	never	4	1.7
		rarely	0	0
		sometimes	25	10.4
		always	211	87.9
4	Wash hands with soap	never	8	3.3
		rarely	6	2.5
		sometimes	39	16.3
		always	187	77.9
5	No available source of clean drinking water at school	never	35	14.6
		rarely	36	15.0
		sometimes	76	31.7
		always	93	38.8

Cont. table

No.	Items	Response	Frequency	Percent
6	Taught modes of infection with parasitic diseases at school	never	37	15.4
		rarely	34	14.2
		sometimes	103	42.9
		always	66	27.5
7	Taught how to protect themselves against parasitic infections at school	never	23	9.6
		rarely	33	13.8
		sometimes	87	36.3
		always	97	40.4
	Mental health			
1	Felt lonely	never	28	11.7
		rarely	30	12.5
		sometimes	93	38.8
		always	89	37.1
2	No close friends	never	70	29.2
		rarely	34	14.2
		sometimes	68	28.3
		always	68	28.3
3	So worried that could not sleep/could not feel hungry	never	27	11.3
		rarely	58	24.2
		sometimes	81	33.8
		always	74	30.8
4	Taught healthy ways to manage anger at school	never	42	17.5
		rarely	41	17.1
		sometimes	80	33.3
		always	77	32.1
5	Taught healthy ways to handle stress at school	never	37	15.4
		rarely	51	21.3
		sometimes	77	32.1
		always	75	31.3
	Violence and unintentional Injuries			
1	Physically attacked ≥ 1 times	never	116	48.3
		rarely	40	16.7
		sometimes	28	11.7
		always	56	23.3
2	In physical fight ≥ 1 times	never	101	42.1
		rarely	57	23.8
		sometimes	28	11.7
		always	54	22.5
3	Were seriously injured ≥ 1 times	never	116	48.3
		rarely	37	15.4
		sometimes	25	10.4
		always	62	25.8

Cont. table

No.	Items	Response	Frequency	Percent
4	Cut wound was the most serious injury	never	120	50.0
		rarely	30	12.5
		sometimes	39	16.3
		always	51	21.3
5	Fight with other was the major cause of the most serious injury	never	119	49.6
		rarely	25	10.4
		sometimes	32	13.3
		always	64	26.7
6	The most serious injury occurred on or near road among boys and at home for girls	never	121	50.4
		rarely	18	7.5
		sometimes	38	15.8
		always	63	26.3
7	Getting seriously injured by hurting themselves by accident	never	114	47.5
		rarely	33	13.8
		sometimes	47	19.6
		always	46	19.2
8	Bullied ≥ 1 days	never	65	27.1
		rarely	74	30.8
		sometimes	59	24.6
		always	42	17.5
9	Being hit, kicked, pushed, shoved around, or locked indoors of most often bullied	never	125	52.1
		rarely	36	15.0
		sometimes	40	16.7
		always	39	16.3
Tobacco use				
1	Smoked first cigarette at age <13 years old	never	163	67.9
		rarely	11	4.6
		sometimes	30	12.5
		always	36	15.0
2	Current cigarette smoking ≥ 1 day	never	153	63.7
		rarely	29	12.1
		sometimes	21	8.8
		always	37	15.4
3	Never tried to quit smoking cigarettes	never	141	58.8
		rarely	15	6.3
		sometimes	16	6.7
		always	68	28.3
4	Used other forms of tobacco such as Shisha ≥ 1 day	never	148	61.7
		rarely	15	6.3
		sometimes	33	13.8
		always	44	18.3

Cont. table

No.	Items	Response	Frequency	Percent
5	People smoked in their presence ≥ 1 day	never	107	44.6
		rarely	21	8.8
		sometimes	55	22.9
		always	57	23.8
6	At least one parent or guardian used any form of tobacco	never	106	44.2
		rarely	36	15.0
		sometimes	38	15.8
		always	60	25.0
Protective factors				
1	Missed classes or school without permission ≥ 10 day	never	93	38.8
		rarely	36	15.0
		sometimes	70	29.2
		always	41	17.1
2	Most students in school were never or rarely kind and helpful	never	40	16.7
		rarely	61	25.4
		sometimes	101	42.1
		always	38	15.8
3	Parents rarely or never or checked if homework was done	never	53	22.1
		rarely	55	22.9
		sometimes	85	35.4
		always	47	19.6
4	Parents rarely or never understood your problems and worries	never	46	19.2
		rarely	62	25.8
		sometimes	81	33.8
		always	51	21.3
5	Parents rarely or never knew what you were doing in your free time	never	59	24.6
		rarely	49	20.4
		sometimes	93	38.8
		always	39	16.3
6	Parents rarely or never go through your things without your approval	never	49	20.4
		rarely	53	22.1
		sometimes	99	41.3
		always	39	16.3

APPENDIX A3. Arabic version of the questionnaire used in the study

الجزء الأول: الخصائص الديموغرافية

عمر:

جنس:

(1) أنثى

(2) ذكر

التعليم:

(1) المرحلة الأولى

(2) المرحلة الثانية

(3) المرحلة الثالثة

(4) المرحلة الرابعة

تعليم الأب:

(1) أمي

(2) خريج مدرسة ابتدائية

(3) خريج المدرسة الثانوية

(4) خريج مدرسة ثانوية خريج جامعة

تربية الأم:

(1) أمي

(2) خريج مدرسة ابتدائية

(3) خريج المدرسة الثانوية

(4) خريج مدرسة ثانوية خريج جامعة

الدخل الشهري:

(1) أكثر من مصاريف

(2) الدخل يساوي المصاريف

(3) أقل من المصاريف

الجزء الثاني: المسح العالمي لصحة الطلاب (GSHS)

العناصر	دائماً	بعض الأحيان	نادراً	أبداً
السلوك الغذائي				
ذهبنا جائعاً				
أكلت الفطور				
أكلت فواكه				
أكل الخضار				
شربت المشروبات الغازية مرة في اليوم				
أكل وجبات سريعة لمرة واحدة في اليوم				
تناول الطعام من الباعة المتجولين أو الباعة المتجولين مرة في اليوم				
يُنظر إلى الذات على أنها نقص الوزن				
تصور نفسك زيادة الوزن				
محاولة خسارة / زيادة الوزن				
مرجح ومقاس				
مؤشر كتلة الجسم				
نقص الوزن				
زيادة الوزن				
سمين				
النشاط البدني				
غير نشط جسدياً				
حصة التربية البدنية $\geq$ يوم واحد				
علم فوائد النشاط البدني				
أنشطة الجلوس $\leq h5$ / يوم				
صحة				
نحى الأسنان				
اغسل يديك قبل الأكل				
اغسل يديك بعد استخدام المراض / المراض				
اغسل يديك بالصابون				

				لا يوجد مصدر متاح لمياه الشرب النظيفة في المدرسة
				علمت طرق الإصابة بالأمراض الطفيلية في المدرسة
				علموا كيفية حماية أنفسهم من العدوى الطفيلية في المدرسة
				الصحة النفسية
				احسست بالوحدة
				لا يوجد أصدقاء مقربين
				قلق جداً لدرجة أنه لا يستطيع النوم / لا يشعر بالجوع
				تعلم طرقاً صحية للتحكم في الغضب في المدرسة
				تعلم طرقاً صحية للتعامل مع التوتر في المدرسة
				العنف والإصابات غير المقصودة
				تعرض للهجوم الجسدي $\leq$ مرة
				في القتال الجسدي ≤ 1 مرة
				أصيب بجروح خطيرة ≤ 1 مرات
				كان الجرح أخطر إصابة
				كان القتال مع الآخر هو السبب الرئيسي لأخطر إصابة
				حدثت أخطر إصابة على الطريق أو بالقرب منه بين الأولاد وفي المنزل للفتيات
				الإصابة بجروح خطيرة من خلال إيذاء أنفسهم عن طريق الصدفة
				تعرض للتخويف $\leq$ يوم واحد
				التعرض للضرب أو الركل أو الدفع أو الدفع أو الإغلاق في الداخل في كثير من الأحيان
				تعاطي التبغ
				تدخين السجارة الأولى في سن أقل من 13 سنة
				تدخين السجائر الحالي ≤ 1 يوم
				لم أحاول الإقلاع عن تدخين السجائر
				استخدام أشكال أخرى من التبغ مثل الشيشة ≤ 1 يوم
				كان الناس يدخنون في وجودهم $\leq$ يوم واحد
				استخدم أحد الوالدين أو الوصي على الأقل أي نوع من أنواع التبغ
				عوامل الحماية

				الغياب عن الفصول الدراسية أو المدرسة دون إذن ≤ 10 يوم
				معظم الطلاب في المدرسة لم يكونوا أبدًا أو نادرًا ما يكونون لطفاء ومتعاونين
				نادرًا ما يتم فحص الوالدين أو عدم قيامهم بالواجب المنزلي
				نادرًا ما يفهم الآباء مشاكلك ومخاوفك أو لم يفهموها أبدًا
				نادرًا ما يعرف الآباء أو لم يعرفوا أبدًا ما كنت تفعله في وقت فراغك
				نادرًا ما يمر الآباء بأشياءك دون موافقتك أو لا يمرون بها أبدًا

الجزء الثالث: مقياس الوحدة

العناصر كم مرة تشعر	دائمًا	بعض الأحيان	نادرًا	أبدًا
"في تناغم" مع الأشخاص من حولك				
أنك جزء من مجموعة أصدقاء				
لديك الكثير من الأشياء المشتركة مع الأشخاص من حولك				
مثل الشخص المنتهية ولايته وودود				
خرج				
أن علاقاتك الاجتماعية ليست ذات مغزى				
لا أحد يعرفك جيدًا حقًا				
معزولين عن الآخرين				
خجول				
أن الناس من حولك ليسوا معك				
أن علاقاتك ليست ذات مغزى				
أنه لا يوجد أحد يمكنك اللجوء إليه				
وحيد				
أنك لم تعد قريبًا من أي شخص				
اهتماماتك لا يشاركها الآخرون				
أن هناك أشخاصًا لا تشعر أنهم قريبون منهم				
أنك تفتقر إلى الرفقة				
أن هناك من يفهمك				

				أن هناك أشخاص يمكنك التحدث معهم
				أن هناك أشخاص يمكنك الرجوع إليهم



**APPENDIX B. The approval of ethics committee of Scientific Research from the
Ministry of Higher Education and Scientific Research / University
of Kirkuk / Facilitate the task.
(Appendix B. Arabic and Turkish Language)**





CURRICULUM VITAE

Personal Information

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