



**NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF NURSING**

**CONTRACEPTIVE USE, RISKY SEXUAL BEHAVIOR
AND HIV RISK BEHAVIORS AMONG MIGRANT SEX WORKER WOMEN
WORKING IN NIGHTCLUBS: NORTHERN CYPRUS EXAMPLE**

M.Sc. THESIS

Mamud Tomgba KARGBO

Nicosia

September, 2022

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MASTER THESIS

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M.Sc. THESIS

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Supervisor

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Nicosia

September, 2022

Approval

We certify that we have read the thesis submitted by Mamud Tomgba Kargbo titled **“Contraceptive Use, Risky Sexual Behavior and HIV Risk Behaviors among Migrant Sex Worker Women Working in Nightclubs: Northern Cyprus Example”** and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Nursing Sciences.

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Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Mamud Tomgba Kargbo

13/09/2022

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Mamud Tomgba Kargbo

Abstract

Contraceptive Use, Risky Sexual Behaviors and HIV Risk Behaviors among Migrant Sex Worker Women Working in Nightclubs: Northern Cyprus Example

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Purpose: The purpose of this study is to investigate the contraceptive use, risky sexual behaviors and HIV risk behaviors among migrant sex worker women working in nightclubs, Northern Cyprus.

Material and Methods: This research was modelled based on the pattern of descriptive, relations-seeker and cross sectional study. The population of this study consists of women who work in nightclubs in Northern Cyprus and go to the venereal diseases polyclinic of Burhan Nalbantoğlu Hospital for health check-ups. The sample size of this study was determined as 384 women and this number was reached. Data were collected face-to-face by the researcher between June 29 and August 10, 2022. Three questionnaires/scales were used in the study, which are personal data collection form, risky sexual behaviors scale and HIV risky behaviors scale. This study was approved by the Ethics Committee board. The data of this study were analyzed using descriptive statistics tests, Kruskal-Wallis H test and Spear-men test.

Findings: It was found that almost half of migrant sex worker women (52,8%) are 18-25 years old, most of them (69,9%) regularly have partners, 47,6% of them have worked in NC since 1-5 year, 46,1% of them are a university or masters/phd educated and half of them (%50,5) are Christian. It was determined that most of women using contraception method were condom (74,3%). In this study, it was found that women take low point (average $9,70 \pm 3,67$, min.0-mak.20) points from Sexual Risk Behaviors Scale and low point (average $10,27 \pm 4,20$, min.0-mak.25) from The HIV Risk-Taking Behaviors Scale. It was determined that there is statistically significant difference between age group, perception of socioeconomic status, number of living children and Sexual Risk Behaviors Scale ($p < 0,05$). It was found that there is statistically significant difference between number of pregnancy, perception of socioeconomic status, women's years in Northern Cyprus and the points of the HIV Risk-Taking Behaviors

Scale ($p < 0,05$). And, it is found that women's Sexual Risk Behaviors Scale points get increase, The HIV Risk-Taking Behaviors Scale scores with Drug Use subscale and Sexual Behaviors subscale points also get increase statistically significantly ($r = 0,961$, $p = 0.01$).

Recommendations: In this study, risky groups among migrant sex worker women working in nightclubs (such as those over the age of 30, low income, having a high number of pregnancies, works year in NC, using alcohol and drugs etc.) should be determined and awareness seminar, opportunity training on HIV and contraceptive methods. It is suggested that more research should be conducted on accessing to reproductive health services among sex workers.

Key Words: contraceptive; migrant women; risky sex; sexual health, sex worker.

Özet

Gece kulüplerinde göçmen çalışan seks işçisi kadınları arasında kontraseptif kullanım, riskli cinsel davranışlar ve HIV riski davranışları: Kuzey Kıbrıs Örneği

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Amaç: Bu çalışmanın amacı, Kuzey Kıbrısta gece kulüplerinde çalışan göçmen seks işçisi kadınları arasında kontraseptif kullanımı, riskli cinsel davranışları ve HIV riski davranışlarını araştırmaktır.

Yöntem ve Gereçler: Bu araştırma, tanımlayıcı, ilişki arayıcı ve kesitsel araştırma yöntemine dayanarak modellenmiştir. Bu çalışmanın evrenini, Kuzey Kıbrıs'taki gece kulüplerinde çalışan ve Burhan Nalbantoğlu Hastanesi zührevi hastalıklar polikliniğine sağlık kontrolleri için giden kadınlardan oluşmaktadır. Bu çalışmanın örneklem büyüklüğü, 384 kadın olarak belirlendi ve bu sayıya ulaşıldı. Veriler araştırmacı tarafından yüz yüze görüşerek, 29 Haziran ile 10 Ağustos 2022 arasında toplandı. Çalışmada 3 anket/ölçek kullanılmış olup, bunlar kişisel veri toplama formu, riskli cinsel davranış skalası ve HIV riskli davranış skalasıdır. Bu çalışma, etik komite kurulu tarafından onaylanmıştır. Çalışmanın verileri, tanımlayıcı istatistik testleri, Kruskal-Wallis H testi ve Spearman testi kullanılarak analiz edilmiştir.

Bulgular: Göçmen kadınların neredeyse yarısının (%52,8) 18-25 yaşında olduğu, bunların çoğunun (%69,9) düzenli partnerlerinin olduğu, %47,6'sının 1-5 yıldan beri çalıştığı, 46,1'inin bir üniversite veya yüksek lisans/doktora eğitimine sahip olduğu ve kadınların yarısının (% 50,5) Hıristiyan olduğu bulunmuştur. Korunma yöntemi kullanan kadınların çoğunun prezervatif kullandığı belirlenmiştir (%74,3). Bu çalışmada, kadınların cinsel risk davranışları ölçeğinden ve HIV risk alma davranışı ölçeğinden düşük puan (ortalama $9,70 \pm 3,67$, min.0-mak.20) aldığı bulunmuştur (ortalama $10,27 \pm 4,20$, dak. .0-mak.25). Yaş grubu, sosyoekonomik durum algısı, yaşayan çocuk sayısı ve cinsel risk davranışları ölçeği arasında istatistiksel olarak anlamlı bir fark olduğu belirlenmiştir ($P < 0,05$). Hamilelik sayısı, sosyoekonomik durum algısı, Kuzey Kıbrıs'ta çalışma yılları ve HIV risk alma davranışı ölçeği arasında istatistiksel olarak anlamlı bir fark olduğu bulunmuştur ($p < 0,05$).

Ve bu çalışma, kadınların cinsel risk davranışları ölçek puanı arttıkça, HIV riskini alma davranışı ölçeği toplam puanı, uyuşturucu kullanımı alt ölçeği ve cinsel davranış alt ölçeği puanlarının da istatistiksel olarak anlamlı bir şekilde arttığını göstermiştir (P <0.05).

Öneriler: Bu çalışmada gece kulüplerinde çalışan göçmen seks işçisi kadınlar arasındaki riskli gruplar (30 yaş üstü, düşük gelirli, yüksek gebelik sayısı, çalışma yılı, alkol ve uyuşturucu madde kullanımı vb.) belirlenmelidir. HIV ve kontraseptif yöntemler konusunda farkındalık semineri gibi fırsat eğitimleri verilmelidir..Seks işçileri arasında üreme sağlığı hizmetlerine erişim konusunda daha fazla araştırma yapılması önerilmektedir.

Anahtar Kelimeler: Kontraseptif; göçmen kadın; riskli sex; cinsel sağlık.

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List of Abbreviations

NC:	Northern Cyprus
HIV:	Human Immunodeficiency Virus
STI:	Sexually Transmitted Infections
WHO:	World Health Organization
UNICEF:	United Nation International Children's Education Fund
UN:	United Nation
CDC:	Centre for Disease Control
SRBS:	Sexual Risk Behaviour Scale
HRBS:	HIV Risky Behaviour Scale

Chapter I

1. Introduction

This chapter includes the problems, purpose, importance, research questions, limitations and related descriptions of the research.

1.1. Statement of the Problem

Any form of sexual act that makes a person prone to contracting any kind of infection that can cause disease to a person be it viral, bacteria, or fungi infection, or makes the woman become pregnant when she did not plan it is referred to as Risky Sexual Behaviors (Keto et al.,2020). Risky sexual behaviors are sexual activities that adolescents or any age group that expose them to having infection through sexual intercourse. This including having sex in a situation or with a person that is not safe and can lead to Human Immunodeficiency Virus (HIV), Sexually Transmitted Infections (STIs) and teen pregnancy (CDC, 2022; UNICEF, 2021). According World Health Organization (WHO), 37.7 million people were living with HIV at the end of 2020 (WHO, 2020). In 2019, It is estimated a mean HIV prevalence of %36 among sex workers (WHO, 2020). In Northern Cyprus (NC), It is stated that the incidence of HIV is highest among infectious diseases (Sarpkaya Güder, 2021). Risky sexual behaviors are the acts of having sex without protection with a person whose status is not known (anonymous partners), more than one sex partner (multiple partners) without the use of barrier method (condom etc.) of protection, under the influence of any drug or alcohol (UNICEF, 2021; WHO, 2020). The use of contraceptive methods can prevent negative health outcomes of risky sexual behaviors (CDC, 2022; WHO, 2020). About 922 million female use contraception out of 1.9 billion women who are sexually active and of the child bearing age in the world in 2019. A good number of these population use female sterilization method of contraception and second to condom use (UN, 2020). In 2019, 21 percent of women were currently using male condom (1899 million), worldwide (UN, 2020). Condoms are highly effective against HIV and other sexually transmitted infections. And, it has been promoted as one way to minimize and prevent unwanted consequences of sexual behaviour (Stover & Teng, 2021). The stigmatization of young adult female

by the society when they seek for safe contraceptive methods is challenging in some societies as this limit the will power to seek for safe contraceptive methods hence they indulge in risky sexual behaviors (Chanda et al., 2017).

It is seen as an important problem that there are no family planning clinics or services in private and public hospitals in NC (Sarpkaya Güder, 2021). This problem may pose a significant health risk for especially migrant sex worker women working in nightclubs. While working in these entertainment places, migrant sex worker women may face risky sexual activities (Awwad, 2020). According to a workshop report (2018), It has been detected women who work in nightclubs are actually considered sex workers (Gece Klupleri Çalıştay Raporu, 2018).

Some foreign women work in night clubs in a heterogeneous society and some of these women rely only on the yearly medical tests conducted by a public hospital for infections (Awwad, 2020). Access to safe and effective contraceptive methods is a key reproductive right of women in preventing negative health outcomes of risky sexual behaviors (Ippoliti, 2017). Meeting the reproductive health demand of migrant women working is influenced by the accessibility, affordability of safe contraceptive methods and the way the woman perceives sexual behaviors (Ippoliti, 2017).

Information on the contraceptive use and sexual behaviors among migrant sex worker women is not available in NC and there are challenges in accessing contraceptive methods in health centers. Women can involve in an unsafe and illegal *abortion* due to unplanned pregnancies as a result of some form of risky sexual behaviors among them (Sarpkaya Güder et al., 2021). Unsafe abortion is an important reproductive health issue that leads to physical and mental results (WHO, 2021).

In the literature, there are not enough studies on the method of contraception use and risky sexual behaviour among migrant sex worker women. This matter can lead to a lack of service in the planning of health services related to them. According to a study in Zimbabwe among all the 38 nations that were involved in the research, less attention is given to sex workers in terms of study in providing safe sex and reducing the risk of HIV transmission among this population (Sibanda et al 2021). According to a study by Sibanda et al. (2021) that in 2019, about 20 million, 23 million, 28 million, 87 million, and 22 million women of reproductive age in Western Africa, Southern Africa, South East Asia, and Eastern Africa respectively have not been able

to get contraceptive method and HIV risk reduction services. Women that provide sex services consist the majority of this female population. In a same study, incidence of unwanted pregnancies, abortion and risk of HIV huge which is a pointer to contraceptive use and HIV risky behaviors (Sibanda et al 2021). And this study stated that the deplorable contraceptive method and risk for HIV in population like Pre-exposure Prophylaxis to reduce the risk of HIV transmission is related with contraceptive method (Sibanda et al 2021). Not letting sex partners know about HIV status is influenced by the social context surrounding people with HIV, women who does not want to lose their relationship, financial dependency on sexual partner (Ayuttacorn et al, 2019). Not reviling HIV positive status to sex partners is a major limitation of migrant women to negotiate condom use when having sex (Ivanova et al, 2018). Stigmatization, Social Isolation, been rejected by the society, are contributing factors that HIV and other STIs transmission difficult to control. Gender role Male dominancy in sexual activities are driving forces limiting migrant women's consistency in condom use during sex (Ayuttacorn et al, 2019).

Nurses have the responsibility to extend their outreach to women working in entertainment places to health educate them in sexual health through community participation and conducting training and health talks on radio to raise awareness on the contraceptive services with paying attention to barrier method that will provide a dual role of contraception and prevent the transmission of infection through sex (Kelsey, 2017; Santa, 2017). The nurse takes part in research activities to develop new ideas in solving problems that women in entertainment places face. The nurse organizes focused group discussions for these women to help them get first-hand information from the professional and clarify misconception in contraception and engaging in risky sex (Botfield, 2020; Santa, 2017). The nurses play a vital role in the vaccination (for example Hepatitis B, HPV) of the population at risk. The nurse does health assessment and history taking to identify those at higher risk of contracting sexual transmitted infections. Counselling and screening services to help identify and provide care for those that are infected (Kelsey, 2017).

This research will serve as reference for other nursing researches in the future (Botfield, 2020). This research will help nurses to have more knowledge in the reproductive health needs of women working in entertainment places. The research will serve as a base line for nurses to influence health policy makers (Britton,2020, Santa, 2017).

1.2.Purpose of the Study

The purpose of this study is to investigate the contraceptive use, risky sexual behaviors and HIV risk behaviors among migrant sex worker women working in nightclubs, Northern Cyprus.

1.3. Research Questions and Variables

1. What is the mean score/level of risky sexual behavior scale among migrant sex worker women working in nightclubs, Northern Cyprus?
2. What is the mean score/level of HIV risk behaviors scale among migrant sex worker women working in nightclubs, Northern Cyprus?
3. Are there relationships between mean scoring of HIV risk behaviors scale and mean scoring risky sexual behavior scale?
4. Would sociodemographic characteristics of migrant sex worker women effect mean score of HIV risk behaviors scale and risky sexual behaviour scale?

Dependent variables: HIV risk behaviors scale score mean/level

Risky sexual behaviour scale score mean/level

Independent variables: Sociodemographic characteristics (Age, educational level, number of pregnancy, works year, perception of socioeconomic status, nationality, abortion and living children,)

1.4.Significance of the Study

There are migrant sex worker women working in nightclubs in NC. Information on the contraceptive use and sexual behaviors among migrant sex worker women is not available in Northern Cyprus and there are challenges in accessing contraceptive methods in health centres. These problems may pose a significant health risk for especially migrant sex worker women working in nightclubs. The research will be used as reference for future studies, provide a way to bridge the gap in contraception

and safe sex practice, and improve reproductive health for migrant women workers in Northern Cyprus.

1.5.Limitations

The study was limited to only migrant sex worker women that works in nightclubs in Northern Cyprus and registered in Dr. Burhan Nalbantoğlu Hospital records. Also, data of this study is limited to women who went to the venereal diseases policlinic of the hospital on the 29th June 2022-10th August 2022.

1.6.Definition of Terms

Contraceptive: Any device or drug used in other to make a woman not to get pregnant even when they have sex as long as they use these device and drug correctly (Britton et al, 2021; Sibanda et al, 2021).

Risky Sexual Behaviors: Risky sexual behaviors are unsafe sexual activities of people regardless of their sexual education, as long as they engage in sexual acts that put them at risk of having sexually transmitted infection or unplanned pregnancy (Adam et al, 2021).

HIV: Human immunodeficiency virus is a virus that can infect the human body and attack the immune system and reduce the body's ability to fight against invading microorganisms and other diseases (Ayuttacorn et al, 2019).

Migrant women workers: These are women who move from their country and work in another countries to receive pay in the country in which they are not citizens either for temporal or permanent work (Invanova et al, 2018; Steen et al, 2019).

Chapter II

2. Literature Review

Research related conceptual definitions, descriptions and information related to the subject that already exists in the literature are given in this chapter.

2.1. Theoretical Framework

2.1.1. *Sex*

Sex is any act of physical contact between individuals in which the reproductive organ (genital) is inserted in the vagina, anus, oral cavity, and sometimes involve the use of fingers for to get orgasm (Kantor, et al., 2021). According to Oxford Advanced Learners dictionary, sex is defined as the physical act of a male penetrating his penis into the vagina of a woman and it usually involves the release of semen (Oxford Advanced Learners Dictionary, 2022).

Sex in this context is the insertion of an erected penis of a male into the vagina of a female and the release of semen into the vagina. It is the coital act between a man and a woman and does not involve anal or oral sex only (Scully, 2022).

2.1.2. *Sexual Behaviors*

Sexual behaviors are different ways by which people demonstrate their urge and feelings of sex by drawing attention and attitude towards other people and how they preserve their relationship. Sexual behaviors also include actions that are based on the sexual feelings people display to achieve their sexual desires and intimate partner relationship issues (Afriye et al., 2019; Vern & Harb, 2022).

2.1.3. *Risky Sexual Behaviors*

Risky sexual behaviors are unsafe sexual activities of people irrespective of the amount of ideas the person has on sexual education, as long as they engage in sexual acts that put them at risk of having sexually transmitted infection or unplanned pregnancy. It involves engaging in activities like irregular use of condoms, having unprotected sex with a stranger, hookups job, sex with different individuals without protection from Sexually Transmitted Infections (STI) and unplanned pregnancies

(Leivo et al., 2022). Risky Sexual Behaviors are acts of engaging in sexual activities in which there is high possibility of been infected with STI or get pregnant without planning to conceive. These acts include engaging in the act of sex with different individuals and failing to use condoms at all times when having sex, sex after taking alcohol and been stimulated by the negative effect of drunkenness. Having sex due to the effect of drugs, and premature engagement in sexual act before the age of maturity (Afriye et al., 2019; Llangari-Arizo et al., 2021).

Effects of Risky Sexual Behaviors.

Risky sexual behaviors can increase the likelihood for women to have poor health outcome, high risk of contracting STI like HIV, Syphilis, Hepatitis B and C Gonorrhoea, more economic cost as prevention is cheaper than the cost of cure. Depression and other psychological conditions can result from unwanted pregnancies, abortion, low self-esteem and infections. Exposure to violence by clients or people enforcing laws against sex work (Brody et al., 2022; Khezri et al., 2022). Serious complications from infection which can damage major organs of the body, emotional trauma and unstable relationship (Keto et al., 2020).

Factors of Risky Sexual Behaviors.

Poverty, lack of family support, and low wages can make a woman powerless and have little or no saying to negotiate for safe sex (Brody et al., 2022). Laws of some countries like Cambodia if female are found with condom while working in entertainment places can be indicted for selling or exchanging sex for other things and the condom used as evidence against them. This act renders the women to be powerless to enforce the use of condoms while having sex. Inadequate reproductive health services and lack of modern dual protection against STI and unwanted pregnancy makes the women to be limited to only the male condom (Brody et al., 2022; Keto et al., 2020). Multiple sexual partners and not knowing their status, moving to a place where people have a negative idea about modern contraceptive methods. Engage in the use of alcohol to stimulate sex drive and altering the consciousness of people while having sex (Hakim et al., 2022; Keto et al., 2020) Inequality in gender will make a woman vulnerable to risky sexual practices, not giving equal opportunities to acquire economic stability and depriving the woman of knowledge needed to protect themselves (Ezekiel et al., 2022).

2.1.4. Human Immunodeficiency Virus (HIV)

Human Immunodeficiency Virus (HIV) that can enter the human body, multiply and target the body's defense by entering fairing with the White Blood cells, reduce the Cluster of Differentiation 4 count in the body. It renders the body vulnerable to opportunistic infections and can lead to Acquired Immune Deficiency Syndrome (AIDS). HIV can be transmitted by engaging in risky sexual behaviors (Grieb et al., 2020; Scully, 2022;).

Prevalence of HIV.

Since the start of the HIV infection, all over the world, about 37.8 million people are living with HIV at the end of the year in 2020 with the majority of this population (25.4 million people) representing 2/3 live in Africa (CDC, 2021.,WHO, 2021). Among these people living with HIV about 36 million are adult and 1.7 million are children under the age of 15 years , among the population of infected people, 19.3 million are women accounting for 53% of HIV infected cases and men account for 16.7 million (47%) .There are 1.5 million new HIV cases of which 1.3 million are people of age 15 years and above and the remaining are children under the age of 15 years (Bekker et al., 2018) Across the globe, the country Estwani has the highest prevalence of HIV than any country. About 27% of the population live with HIV. Lesotho, Botswana, and South Africa account for 21.1%, 19.9%, and 19.1% of their countries population respectively (Bekker, et al., 2018; WHO., 2021). In Ghana there have been a steady prevalence of HIV in general, there are more women living with HIV. Among women who have sex without protection and became pregnant the HIV prevalence is 2.4% in 2016 as compared to 1.6% and 1.8% in 2014 and 2015 respectively (Afriyie et al., 2019). From 1997 to 2018 health data report from the ministry of health in the Turkish Republic of North Cyprus (TRNC) there are 129 people living with HIV representing 0.83 of the population of TRNC (Sultanoglu et al., 2022). In the Republic of Cyprus also called South Cyprus there are 1057 people living with HIV (Bahar et al., 2022; Sultanoglu et al., 2022). In a study conducted in Turkey in 2021 there were 198 HIV positive people out of the total population of 230 participants in the study of HIV discrimination among the population (Sultanoglu, et al., 2022). There is increase in the number of people living with HIV over the years. There were 19,778 people living with HIV and 1,772 people living with AIDS in

2018. Among these people, 20.1% and 79.9% were female and male respectively and the majority of the participants were male representing 62.1% and 37.9% female. HIV infected people who are married were 242 (56.5%) and the rest are not married, 54.4% are unemployed and about 70.3% of the participants resides in the urban area (Bekker et al., 2018; Sultanoglu et al., 2022).

2.1.5. Contraceptives

Contraceptives are devices or drugs used in order to make a woman not to get pregnant even when they get sex as long as they use these devices and drugs correctly. They include condoms, birth control pills, intrauterine devices, patches, or surgical procedures that prevent fertilization and implantation (Bolarinwa et al., 2021; Satriyandari, et al., 2022).

Contraceptives Methods.

In choosing the method of contraception, there is need to consider the available methods (accessible and affordable), the safety, and effectiveness of the method used (CDC, 2022). The effectiveness of contraceptives varies based on the individual's condition. The modern contraceptive methods are highly effective if used correctly. They include Intrauterine device (IUD) with 0.1 to 0.8 percent ineffectiveness, Hormonal injection every three months with 0.4 percent ineffectiveness, combined oral contraceptive and mini pill, patch, vaginal ring with each having 7 percent ineffectiveness, barrier methods such as Male and Female condoms with 13 and 21 percent ineffectiveness respectively. Fertility awareness methods 23 percent ineffectiveness, Lactation Amenorrhea, calendar of monthly menstruation. Cervical cap/ Diaphragm 17 percent of ineffectiveness and Sponge which have 14 percent and 27 percent for women who have not given birth and women who have given birth before respectively (CDC, 2022; WHO, 2020). Permanent contraceptive methods include Tubal ligation for female and Vasectomy for male with 0.5 and 0.15 percent ineffectiveness respectively (CDC, 2022; WHO, 2020). There are limited information on the contraceptive methods used in NC. Combined oral contraceptives, hormone injection are available in NC Emergency contraceptive pill is over the counter for sale (Asut et al, 2018). The use of condoms, Intrauterine device (IUD), tubal ligation method, and withdrawal method are practiced in Northern Cyprus (Sarpkaya Guder, 2021).

Prevalence of Contraceptive Methods Using.

Currently the Modern contraceptive methods are mostly used worldwide among the 1.9 billion female age 15 to 49 that have reached the age of reproduction (WHO, 2020). 1.1 billion of these women are either using contraceptive method they want or they are not getting the contraceptive method they need (UN, 2019; WHO, 2020). The number of women using modern contraceptive methods are 842 million and 80 million women are using the traditional contraceptive methods as of 2019 (UN, 2019). 190 million women have not met their contraceptive needs in 2019 compared the 156 million with unmet contraceptive need in the year 2000, there has been an increase of 74% in the year 2000 to 76% in the year 2019 with a large number of this population in Sub-Saharan Africa with only 55% have met the contraceptive need (UN, 2019).

Namibia and Eswatini having the highest number of women using modern contraceptive with 52% each, South Sudan and Chad have the lowest use of Modern contraceptive of 4% and 6% respectively (UN, 2019). Cuba has the highest modern contraceptive use (69%) and Haiti with the lowest (25%) in the Caribbean (UN, 2019). One in ten female use only traditional method of contraception and Albania account for greater number of women using traditional method of contraception (25%) (UN, 2019). As of 2019, the prevalence of modern contraceptive method has improved by 10 percent with Female Sterilization being the most common use of contraception accounting for 219 million (23.7%) of total women using contraceptive, 189 million uses male condom, 45.2% uses other permanent methods like IUD, 46.1% uses hormonal shorts and other methods while 8.7% use traditional methods (UN, 2019).

In Northern Cyprus women about 83.5% uses some other methods while 44% are on modern contraceptive methods, IUD, condom, cortious interuptus , and tubal ligation are the methods used according to a research conducted aiming women living in Iskele (Sarpkaya & Eroglu, 2011).

2.1.6. Prevention of Risky Sexual Behaviors

Consistency in the use of condoms at all times when having sex, not exposing children to early sex rather to give them sexual education at the appropriate age at all levels of education (Brindis, 2022). Social and attitudinal change in controlling one's self, not to engage in intake of alcohol or any drug that will alter consciousness to practice safe sex (Brindis, 2022). Faithfulness to one sexual partner who is not infected and is using a safe contraceptive method. Avoided having sex with a stranger without protection and discouraging the culture of selling sex for whatever reason (WHO, 2021). Health education, raising awareness and identifying vulnerable population and working with schools, communities through community participation to facilitate collaborative effort (Wilkins et al., 2022; CDC, 2022).

Sexual Education.

Sexual education is a structured process of instruction on matters related to sexuality of people and it includes emotional relationships and being responsible, human sexual structure and autonomy over their body, sexual activities, age appropriateness, reproductive health and right, Safe sex practice and contraceptive methods and abstinence (Kantor et al., 2021). This can be achieved through formal school programs, health education, public health campaigns, community mobilization and the influence of policy makers (Noorman, 2022; Sulak & Ronallo, 2021).

2.1.7. Risky Sexual Behaviors and Nursing

Nursing plays a great role in providing first-hand information about risky sexual behaviors through school health nursing activities which include sexual health education of pupils and students (Ganle et al., 2019). The community health nurse plays a vital role in educating the community on risky sexual behaviors the approach to achieve good sexual and reproductive health practices among all population especially people like steelworkers, people engaging in other risky sexual behaviors to accept the culture of sex education and tell them the effects of unprotected risky sexual behaviors. Identify people at risk and enhance community participation, through nursing research, and outreach services to provide mobile clinics to have to reach places (Pavelová et al., 2021). Nursing practice involves building a strong foundation for sexual health and safe sex practice across all works of life and

providing safe contraceptive services and distribution of condoms. Engaging in research activities to bring new ideas to address sexual health issues and doing more than just to figure out the groups at risk. Bring other aspects that prevent people from engaging in risky sexual activities like guidance and counseling services, vaccination campaign and safe contraceptive services, health education on behavior change towards positive sexual relationship (Jaeckl et al., 2021; Pavelová et al., 2021). Nurses have the responsibility to know children at risk of exchanging sex for money or engage in other risky sexual acts. Work with other allied health professionals to help those that are engage in risky sexual behaviors to help them practice safe sex (Jaeckl et al., 2021). Nurses' help to provide care and respecting the right of people to get control over their sexuality, provide a conducive environment for sexual health services since nurses are usually the first point of contact. Nurses provide sexual health services without favor and encourage equity and equality (Mermer et al., 2021).

Nursing Diagnosis in Risky Sexual Behavior

(Vera. M. 2022; <https://www.publichealth.com.ng/nanda-international-nursing-diagnosis-list-2020-2021/>).

- Risk for infection
- Hopelessness
- Noncompliance
- Disturbed thought process
- Stress overload
- Powerlessness
- Situational low self-esteem

2.2. Related Research

The risky sexual behaviors among women who cannot access modern contraceptives and use them effectively led to ineffective contraceptive use, risky sexual acts, sexually transmitted diseases, and other psychosocial problems (UN, 2019). According to a research that was looked at articles from countries of higher income and other researchers conducted in Asia, America, Europe, and the United

Kingdom, the laws governing sex work is different from one country to another and some countries did not state clearly whether sex work is legal or not some studies included both Opportunistic sex workers. Sexually transmitted diseases, drug and alcohol use, inconsistent contraceptive use, social isolation, mental health problems and viruses in the blood were the problems high risky sexual behaviors and HIV risky behaviors they face. Countries that legalize sex work have less risky sexual behaviors with high consistent use of barrier method of contraception like condom. There was high rate of risky sex with high HIV risk taking, inconsistency and low use of condom in countries where sex work is a crime because they have access to appropriate and affordable contraception and information on risky sex (Mc Gann et al, 2021).

In another related study by Sibanda et al in 2021 about contraceptive methods among female sex workers in 38 countries, young sex workers have less knowledge on contraception and they engage more in sex without condom. Contraceptive choice different from one country to another and depends on the accessibility, convenience of usage, possible complications and aftereffects (Sibanda et al, 2021). Majority of the respondents have knowledge of contraception but they face challenges with their male clients, the health policy of the country they are, and the perception of the public concerning sex work (Sibanda et al, 2021).

In another study conducted in Ghana by Adam et al 2021, the average age of participants was 17.2 years and a greater number of them are secondary school certificate holders. Among the respondents, 46.6% and 77.9% had regular and casual partners respectively, 21.4% had sex while under the influence of alcohol and 60.7% of them did not use any form of protection against sexually transmitted diseases or contraception and this put them at a high HIV risk (Adam, et al, 2021).

Most of the participants know contraception to prevent pregnancy and Male condom was the most popular method known among them and about half of the respondents associate contraception as a means to have multiple sex partners and the inconsistency use of condom especially among those that are using oral contraceptive and condom are high risk of contracting HIV since they cannot get pregnant because of the oral or hormonal contraception (Adam, et al, 2021; Ziblim et al, 2022).

In a study conducted in Thailand, 4.7% of the migrant workers were HIV positive and this is due to the risky sexual behavior among these vulnerable group.

They lack the knowledge they perform safe sex and unwelcoming sexual and reproductive health services to migrants making the risk of contracting HIV higher (Ayuttacorn, et al, 209)

In a similar study that was conducted at the United State Mexican area, most female sex workers are less educated and are of low socioeconomic status. Female sex workers accounting for 43% used condom regularly with their regular partner while 56% of them always use condom when having sex with casual partners or clients, Greater number of the female sex workers representing 75% had sex unprotected sex when clients paid more money for sex without condom, the number of women that were positive for STI was 35%, about 19% and 60% of them had sex under the influence of alcohol and drugs respectively (West et al, 2022). Sex work of women was masked with their work place that is legal in the geographical region they find themselves, the rules of the employers and expanding occupational health services is key in reducing the risky sexual behaviors and safe contraceptive methods (West et al, 2022).

Chapter III

3. Methodology

This chapter provides information about the research design, participants/sample, data collection and analysis procedures as well as how the findings are analysed.

3.1. Research Design

This research was modelled based on the pattern of descriptive, relations-seeker and cross sectional study.

3.2. Participants / Population & The Sample / Study Group

3.2.1. Area of study, population and period of study

Migrant sex worker women working in nightclubs, who go to the venereal diseases polyclinic of Dr. Burhan Nalbantoğlu Hospital in Nicosia, Northern Cyprus for a routine health check every week (8am-12pm 4 days a week). It is aimed to reach all of these women through the polyclinic visits. Data are collected on the 29th June 2022-10th August 2022.

The clinic starts registration of clients at 8:30am and stops registration at 10am from Monday to Thursday. New female workers usually come with their luggage at 7:40am in to one big waiting room which have about 60 chairs in it. They are always scouted by a police officer who always gives their passport book to the nurse for registration. The managers of the night clubs always come by badge with their workers to avoid overcrowding. Each badge has about 60 female workers from different nightclubs. Migrant sex worker women working in nightclubs often go for medical examination upon arrival before they start work, they are also taken for a routine blood test for sexually transmitted infections (STIs) and vagina swab test every week at this Government Hospital. These procedures are only mandatory in this hospital. The polyclinic of this hospital was chosen in order to reach all women working in nightclubs in NC.

3.2.2. Sample size determination

The sample size of = 384 Migrant women workers in total was determined. The number was calculated using sample size method of sample size determination of the unknown population. This research used self-selection sampling of non-probability sampling technique. Using Cochran's equation to yield representative sample at 95% confidence interval and population proportion (P)= 0.5 (maximum variability).

Formula:

$$\text{Sample Size} = \frac{Z^2PQ}{E^2}$$

Where:

Z Scores =1.96,

Population proportion P = 0.5,

Q= 1-p,

Accepted sample of error E = 0.05

$$\text{Sample size (no)} = \frac{1.96^2[P(1-P)]}{E^2}$$

$$\begin{aligned} & \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2} \\ = & \frac{3.8416 \times 0.5 \times 0.5}{0.0025} \\ & \frac{0.9604}{0.0025} \end{aligned}$$

Average population size= 384.16

Sample selection criteria were as follows:

Inclusion criteria

- To speak and understand English.
- To be volunteered to participate in the study
- To work a nightclub officially
- To be sexually active
- To be 18 years old or above

Exclusion criteria

- To unable respond all of question
- Women who are citizens of Cyprus or are from Turkey

3.3. Data Collection Tools/Materials

The study data were collected using three questionnaires between the 29th June 2022 to the 10th August 2022 by the researcher through face-to-face interviews. The completion of the questionnaire by each participant with pen lasted for about 10 minutes. Below are study tools that personal information form, the risky sexual behaviour scale, and HIV Risk Behaviors Scale contain.

3.3.1. Personal Information Form.

This form was used to collect personal information from the participants that included a total of 15 questions addressing, age, relationship status, working duration, educational level, nationality, religion, perception of socioeconomic status, number of pregnancy, number and type of abortion, number of living children, information about contraceptive methods, source of this knowledge, contraceptive use and method. This form was structured by researchers. (Attachment A)

3.3.2. The Sexual Risk Behavior Scale

The scale was developed by looking at current findings on sexual risky behaviors scales which is vital in sexual health behaviors assessment (Attachment B). The scale is composed of six items, in which each helps to know the particular sexual risky behaviour. All items were scored on a 5 point Likert scale. Items included questions about frequency of anal, vaginal and oral sex without condoms and frequency of sex while under the influence of alcohol and drugs or substances. SRBS total scores (0-24 points) can be computed by averaging individual items's scores (where 0 = "Never"; 1 = "Rarely"; 2 = "Sometimes"; 3 = "Often"; 4 = "Very often"), with higher total scores indicating higher risk to engage in sexual risk behaviors (Fino et al., 2021). Fino et al determined that it is reliability and validity. They found that cronbach's alpha of factors for the scale is 0.61–0.93.

3.3.3. The HIV Risk-Taking Behavior Scale

The HIV Risk-Taking Behaviour scale (HRBS) was also used as it is composed of 11 items we ask participants and it was used in assessing both sexual behaviors and the behaviour of needle use in intravenous drug users (Attachment C). The sexual behaviour part of the tool composed of 5 points and each point asked questions on how many sex partners in the last one month, frequency of the use of condom when having sex with a regular partner and irregular partner, use of condom in paid sex, and frequency of anal sex in the last month. These scores are added up to provide measures of drug use risk taking behaviour subscale, sexual risk-taking behaviour subscale, and a global HRBS. Scores on the whole test range then from 0-55, with higher scores indicating a greater degree of risk-taking behaviour. The scale was developed by Dr Emmanuel Fino from the University of Nottingham United Kingdom. Darke et al determined that it is reliability and validity. They stated that the cronbach's alpha of the HRBS was 0.70 (Darke et al., 1991; Ward et al., 1990).

3.4. Data Collection Procedures

Before starting to collect the data of the study, the permissions was obtained to use the scales. The date was collected by face to face administration of hard copies of the questionnaires to the respondents from the 29th of June 2022 to the 10th of August 2022. . Each group of participants, about 60 per group and up to six (6) groups per day were to participants who came every day, Monday to Thursday between 8.30 am to 10.00 am. Researcher introduced himself to the participants. The objective of the study was clearly explained and then they signed in the written informed consent before responding to the questions. The questions of the participants about the questionnaires were answered by the researcher. The questionnaires and a pen given to each of the participants who are willing to participate, signed the informed consent and fill the questionnaire whilst waiting for laboratory sample to be taken. Some of the participants asked the ethical approval of this study and confirmed with the clinical staffs before taking part in the study.

3.5. Data Analysis Plan

The data obtained in the study were statistically analyzed in the SPSS 26.0 software. The distribution of women according to their socio-demographic characteristics is shown by frequency analysis. Descriptive statistics of the women, the Sexual Risk Behaviors Scale (SRBS) and the HIV Risk-Taking Behavior Scale (HRBS) scores are given. It was determined that the SRBS and the HRBS scores of the women did not show a normal distribution. For these reasons, the research hypotheses were tested with nonparametric tests. The Kruskal-Wallis H test was used to compare the SRBS and the HRBS according to the socio-demographic characteristics of the women. Correlations between the SRBS and the HRBS were tested with the Spearman test.

3.6. Ethical Considerations

This study was approved by the Ethics Committee board of Dr. Burhan Nalbantoğlu Hospital Ethical Board on the 28th June, 2022 with number T.T.K. 1.01 (EK 23/22). (Attachment D). Permission was obtained by owner of scales to use the SRBS and the HRBS in this study. (Attachment F).

In accordance with the “Declaration of Helsinki on Human Rights”, the participants who voluntarily participated in the research were informed about the purpose of the research. In addition, by giving verbal information that the personal information and privacy of the participants will be protected, informed consent was obtained.

Chapter IV

4. Findings and Discussion

This chapter presents the findings based on the collected data.

4.1. Findings for Characteristics of the Women

Table 1. *Socio-Demographic Characteristics of the Women (n=386)*

	Number (n)	Percentage (%)
Age group		
18-21	84	21,76
22-25	120	31,09
26-29	93	24,09
30 and older	89	23,06
Relationship Status		
Married	4	1,04
Divorced	112	29,02
Regularly have partners	270	69,95
Work Years in Northern Cyprus		
Under 1 year	181	46,89
1-5 year	184	47,67
5-10 year	21	5,44
Educational Level		
Primary	22	5,70
High school	186	48,19
University	158	40,93
Master/Phd	20	5,18
Perception of Socioeconomic Status		
Income exceeds expences	270	69,95
Income equal to expenses	98	25,39
Income less than expenses	18	4,66
Religion		
Christian	195	50,52
Muslim	176	45,60
Others	15	3,89

In Table 1, the distribution of the women's descriptive characteristics is given. It is seen that 21,76% of the women are between 18-21 years old, 31,09% of women are between 22-25 years old, 24,09% of women are between 26-29 years old, 23,06% of them are 30 years old or older, 1,04% of the women are married, 29,02% of the women are divorced and 69,95% of the women regularly have partners. When we examine the participant women's background in NC, we see that 46,89% of them work in NC under 1 year, %47,67 of them work in NC between 1-5 years and 5,44% of them work in NC between 5-10 years. 5,70% of the women are primary school educated, 48,19% of the women are high school educated, 40,93% of the women are university educated and 5,18% of the women are master/ Phd educated. 69,95% of participant women declared that their income exceeds expenses, 25,39% of participant women declared that their income is equal to expenses and 4,66% of participant women declared that their income is less than expenses. 50,52% of the women are Christian, %45,60 of them are Muslim and 3,89% of the women are from other religions.

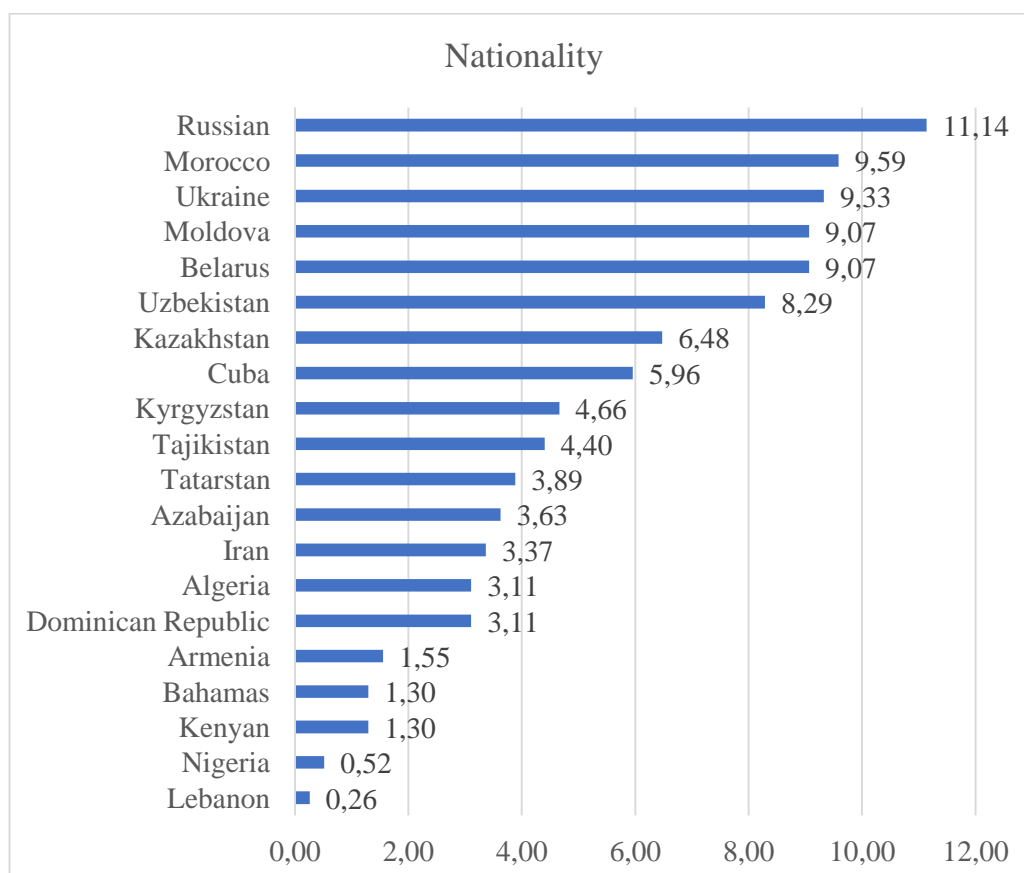


Figure 1. Nationalities of the Women

In Figure 1, the distribution of the women's nationalities is given. It is seen that 11,14% of the participants are from Russia, 9,59% of them are from Morocco, 9,33% of the participants are from Ukraine, 9,07% of the participants are from Moldova, 9,07% of the participants are from Belarus, 8,29% of the participants are from Uzbekistan, 6,48% of the participants are from Kazakhstan, 5,96% of the participants are from Cuba, 4,66% of the participants are from Kyrgyzstan, 4,40% of the participants are from Tajikistan, 3,89% of the participants are from Tataristan, 3,63% of the participants are from Azerbaijan, 3,37% of the participants are from Iran, 3,11% of the participants are from Algeria, 3,11% of the participants are from Dominican Republic, 1,55% of the participants are from Armenia, 1,30% of the participants are from Bahamas, 1,30% of the participants are from Kenya, 0,52% of the participants are from Nigeria and 0,26% of the participants are from Lebanon.

Table 2. Obstetric Characteristics of the Women (n=386)

	Number (n)	Percentage (%)
Number of Pregnancy		
None	192	49,74
1	113	29,27
2	55	14,25
3 and more	26	6,74
Number of Abortion		
None	296	76,68
1	70	18,13
2 and more	20	5,18
Type of Abortion		
None	295	76,42
Spontaneous aborttion	24	6,22
Medical abortion	67	17,36
Number of Living Children		
None	240	62,18
1	110	28,50
2 and more	36	9,33

In Table 2, the Obstetric Characteristics of the women is given. It is seen that 49,74% of the participant women did not get any pregnancy, 29,27% of them have one, 14,25% of them have two, 6,74% of them have three or more pregnancies. 76,68% of the women did not get any abortion, 18,13% of them have one abortion and 5,18% of them have two and more abortions. 6,22% of participants have

spontaneous abortion and 17,36% of them have medical abortion. 62,18% of the participant women have no children, 28,50% of them have one and 9,33% of them have two or more living children.

Table 3. Using and Having Information About Contraceptive Methods of the Women (n=386)

	Number (n)	Percentage (%)
Information About Contraceptive Methods		
No	2	0,52
Yes	384	99,48
Information Source		
Family/Friends	283	73,32
Books/Journal	53	13,73
Family Plannig Service	119	30,83
Social Media	176	45,60
Other	36	9,33
Using A Contraceptive Methods Now		
No	5	1,30
Yes	381	98,70
Contraceptive Methods		
Male condoms	112	29,02
Female condoms	5	1,30
Oral Contraceptive	14	3,63
Birth Control Patch	1	0,26
Vaginal Ring	4	1,04
Spermicidal	1	0,26
Abstinence	3	0,78
Emergency Contraception	54	13,99
Male Condom and Oral Contraceptive	175	45,34
Other	12	1,55

In Table 3, the using and having information about contraceptive methods of the women is given. it is seen that 0,52% of the participant women have not get any information about contraceptive methods, 99,48% of them get information about contraceptive methods, women whom get information about contraceptive methods, 73,32% of them get it from family/friends, 13,73%% of them get it from books/journals, 30,83% of them get it from family planning service, 45,60% of them get it from social media and 9,33% of them get it from other sources. 1,30% of the participant women declared that they are not using a contraceptive method now,

98,70% of the women declared that they are using a contraceptive method now, women whom using contraceptive method, 29,02% of them using male condoms, 1,30% of them using female condoms, 3,63% of them using oral contraceptive, 0,26% of them using birth control patch, 1,04% of them using vaginal ring, 0,26% of them using spermicidal, 0,78% of them using abstinence, 13,99% of them using emergency contraception, 45,34% of them using male condoms and oral contraception and 1,55% of them using other methods.

4.2. Findings for Research Question I-II

What is the mean score/level of risky sexual behavior scale among migrant sex worker women working in nightclubs, Northern Cyprus?

What is the mean score/level of HIV risk behaviors scale among migrant sex worker women working in nightclubs, Northern Cyprus?

Table 4. The Descriptive Statistics Women's Scores on Sexual Risk Behaviors Scale and the HIV Risk-Taking Behaviour Scale (n=386)

	\bar{x}	s	Min	Max
Sexual Risk Behaviors Scale	9,70	3,67	0	20
The HIV Risk- Taking Behavior Scale	10,27	4,20	0	25
Drug Use Subscale	0,16	1,33	0	14
Sexual Behavior Subscale	10,11	4,05	0	20

In table 4, the descriptive Statistics women's scores on the SRBS and the HRBS is given. The SRBS score can range from 0 to 24. And the HRBS score can range from 0 to 55. It is seen that women take average $9,70 \pm 3,67$ points, minimum 0, maximum 20 points from SRBS. Women who included in the research, take average $0,16 \pm 1,33$ points, minimum 0, maximum 14 points from drug use subscale, they take average $10,11 \pm 4,05$ points, minimum 0, maximum 20 points from SRBS subscale and they take average $10,27 \pm 4,20$ points, minimum 0, maximum 25 points from the HRBS.

4.3. Findings for Research Question III

Are there relationships between mean scoring of HIV risk behaviors scale and mean scoring risky sexual behaviour scale?

Table 5. The Comparison of women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Age Group

	Age group	n	\bar{x}	S	M	M.R.	X ²	p	Dif.
Sexual Risk Behaviors Scale	18-21	84	8,75	3,89	10	166,84	7,862	0,049*	1-4
	22-25	120	9,66	3,84	10	192,43			
	26-29	93	10,09	3,00	11	200,77			
	30 and older	89	10,26	3,74	11	212,52			
The HIV Risk-Taking Behavior Scale	18-21	84	9,54	4,21	9,5	172,64	4,618	0,202	
	22-25	120	10,53	3,97	11	199,29			
	26-29	93	10,18	4,11	11	191,97			
	30 and older	89	10,72	4,53	11	206,97			
Drug Use Subscale	18-21	84	0,13	1,10	0	194,57	0,549	0,908	
	22-25	120	0,18	1,42	0	193,23			
	26-29	93	0,08	0,73	0	192,06			
	30 and older	89	0,27	1,81	0	194,37			
Sexual Behavior Subscale	18-21	84	9,40	4,09	9	172,68	4,238	0,237	
	22-25	120	10,35	3,73	11	200,05			
	26-29	93	10,11	4,09	10	193,38			
	30 and older	89	10,45	4,35	11	204,44			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the points of women taken from SRBS and HRBS by age group and result given in Table 5. When Table 5 examined, it was found that there is statistically significant difference between age group and SRBS ($p < 0,05$). Women who are 30 years old and older (mean=10,09), get higher points from SRBS then women who are between 18-21 years old (mean=8,75). There is no statistically significant difference between women's age group and the points of the HRBS and its subscales ($p > 0,05$).

Table 6. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Relationship Status

	Relationship Status	n	\bar{x}	s	M	M.R.	X^2	p	Dif.
Sexual Risk Behaviors Scale	Married	4	6,25	4,79	6	107,50	3,190	0,203	
	Divorced	112	9,42	3,84	10	186,68			
	Have partners	270	9,87	3,56	10,5	197,60			
The HIV Risk-Taking Behavior Scale	Married	4	10,75	10,14	8,5	164,75	2,384	0,304	
	Divorced	112	10,67	4,33	11	206,63			
	Have partners	270	10,10	4,02	10,5	188,48			
Drug Use Subscale	Married	4	3,50	7,00	0	238,88	12,561	0,002*	1-2
	Divorced	112	0,21	1,62	0	193,47			1-3
	Have partners	270	0,09	0,86	0	192,84			
Sexual Behavior Subscale	Married	4	7,25	4,35	8,5	126,13	3,148	0,207	
	Divorced	112	10,46	4,18	11	205,56			
	Have partners	270	10,01	3,98	10	189,49			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the women's points taken from SRBS and the HRBS by relationship status and result is given in Table 6. When Table 6 examined, it was found that there is no statistically significant difference between women's marital status and the points of SRBS ($p > 0,05$). There is statistically significant difference between women's marital status and the points of drug use subscale ($p < 0,05$). Married women took higher points (mean=3.5) then divorced women and women whom have a partner (mean=0,09).

Table 7. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Years in North Cyprus

	Years in NC	n	\bar{x}	S	M	M.R.	X ²	p	Dif.
Sexual Risk Behaviors Scale	Under 1 year	181	9,44	3,77	10	185,19	5,003	0,082	
	1-5 year	184	9,81	3,57	10	196,23			
	5-10 year	21	11,00	3,44	12	241,21			
The HIV Risk-Taking Behavior Scale	Under 1 year	181	9,66	4,25	10	176,30	9,992	0,007*	1-3
	1-5 year	184	10,66	4,10	11	205,15			
	5-10 year	21	12,14	3,71	12	239,62			
Drug Use Subscale	Under 1 year	181	0,08	1,04	0	191,08	3,476	0,176	
	1-5 year	184	0,19	1,26	0	195,22			
	5-10 year	21	0,67	3,06	0	199,31			
Sexual Behavior Subscale	Under 1 year	181	9,58	4,09	10	179,01	6,833	0,033*	1-3
	1-5 year	184	10,47	4,03	11	203,64			
	5-10 year	21	11,48	3,27	11	229,52			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the points of the women taken from SRBS and HRBS by years in NC.

When Table 7 examined, it was found that there is no statistically significant difference between women's years in NC and the points of SRBS ($p > 0,05$). It was figured out that there is statistically significant difference between women's years in NC and the points of the HRBS and Sexual Behavior subscale points ($p < 0,05$). Women who are in NC between 5-10 years, get higher points from Sexual Behavior subscale (mean= 11,48) and the HRBS (mean=12,14) then women who are in NC under one year.

Table 8. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Educational Level

	Educational Level	n	\bar{x}	s	M	M.R.	X²	p
Sexual Risk Behaviors Scale	Primary	22	8,77	5,40	10,5	186,75	6,205	0,102
	High school	186	10,27	3,27	11	207,17		
	University	158	9,15	3,72	10	177,58		
	Master/Phd	20	9,80	3,94	11	199,58		
The HIV Risk-Taking Behavior Scale	Primary	22	8,64	4,63	8,5	156,95	3,904	0,272
	High school	186	10,09	3,88	11	189,19		
	University	158	10,65	4,31	11	201,78		
	Master/Phd	20	10,85	5,27	11	208,45		
Drug Use Subscale	Primary	22	0,00	0,00	0	190,00	2,578	0,461
	High school	186	0,08	1,03	0	192,07		
	University	158	0,24	1,57	0	194,89		
	Master/Phd	20	0,50	2,24	0	199,68		
Sexual Behavior Subscale	Primary	22	8,64	4,63	8,5	160,23	2,643	0,450
	High school	186	10,01	3,79	11	191,31		
	University	158	10,41	4,11	11	200,01		
	Master/Phd	20	10,35	5,03	11	199,08		

Table 8 shows the results of Kruskal-Wallis H test on the comparison of women's SRBS and the HRBS by their educational level. When Table 8 examined and it was found that there is no statistically significant difference between women's educational level and the points of SRBS ($p > 0,05$). Women from different educational level, get similar points from SRBS. It was found that there is no statistically significant difference between women's educational level and the points of the HRBS including its subscales named drug use and sexual behaviour ($p > 0,05$).

Table 9. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Religion

	Religion	n	\bar{x}	S	M	M.R.	X ²	p
Sexual Risk Behaviors Scale	Christian	195	9,53	3,81	10	190,52	3,366	0,186
	Muslim	176	10,04	3,33	10	200,66		
	Other	15	7,93	4,99	8	148,23		
The HIV Risk-Taking Behavior Scale	Christian	195	10,16	4,14	11	190,65	0,263	0,877
	Muslim	176	10,38	4,31	11	196,28		
	Other	15	10,47	3,64	11	197,97		
Drug Use Subscale	Christian	195	0,09	0,87	0	192,95	2,034	0,362
	Muslim	176	0,22	1,66	0	193,32		
	Other	15	0,47	1,81	0	202,77		
Sexual Behavior Subscale	Christian	195	10,07	4,10	11	191,84	0,176	0,916
	Muslim	176	10,16	4,06	11	195,89		
	Other	15	10,00	3,46	10	187,07		

Table 9 shows the results of Kruskal-Wallis H test on the comparison of women's points taken from SRBS and HRBS by religion.

When Table 9 examined, it was found that there is no statistically significant difference between religion and the points of SRBS and HRBS including drug use and sexual behaviour subscales ($p > 0,05$). Women who are Christian, Muslim and from other religion, get similar points from SRBS and the HRBS including drug use and sexual behaviour subscales.

Table 10. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk- Taking Behavior Scale by Perception of Socioeconomic Status

	Perception Of Socioeconomic Status	n	\bar{x}	s	M	M.R.	X ²	p	Dif.
Sexual Risk Behaviors Scale	Income exceeds expences	270	10,19	3,23	11	209,16	19,396	0,000*	1-2
	Income equal to expences	98	8,36	4,38	8,5	151,59			2-3
	Income less than expences	18	9,78	3,98	10	186,81			
The HIV Risk-Taking Behavior Scale	Income exceeds expences	270	10,62	4,17	11	202,61	13,635	0,001*	1-2
	Income equal to expences	98	9,05	4,10	9	160,13			2-3
	Income less than expences	18	11,72	3,86	12	238,58			
Drug Use Subscale	Income exceeds expences	270	0,11	1,04	0	192,85	1,629	0,443	
	Income equal to expences	98	0,24	1,73	0	193,97			
	Income less than expences	18	0,56	2,36	0	200,75			
Sexual Behavior Subscale	Income exceeds expences	270	10,51	4,07	11	204,17	14,552	0,001*	1-2
	Income equal to expences	98	8,81	3,80	9	157,62			2-3
	Income less than expences	18	11,17	3,62	11,5	228,75			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the points of the women taken from SRBS and HRBS by perception of their socioeconomic status (Table 10).

When Table 10 is examined, it was found that there is statistically significant difference between women's perception of their socioeconomic status and the points of SRBS ($p < 0,05$). Women whom declared that their income equal to expenses, get lower points (mean=8,36) then women whom declared that their income exceeds expenses and women whom their income less then expenses. There is statistically significant difference between women's perception of their socioeconomic status and the points of HRBS and Sexual Behaviour subscale ($p < 0,05$). Women whom their income equal to expenses get lower points (mean=8,81) from both HRBS and Sexual Behaviour subscale then women whom income exceeds expenses and women whom income less then expenses.

Table 11. The Comparison of Women's Points Taken from Sexual Risk Behavior Scale and the HIV Risk- Taking Behavior Scale by Number of Pregnancy

	Number of Pregnancy	n	\bar{x}	s	M	M.R.	X ²	p	Dif.
Sexual Risk Behaviors Scale	None	192	9,49	3,43	10	186,76	4,793	0,188	
	1	113	9,74	3,47	10	190,87			
	2	55	10,56	4,06	11	223,49			
	3 and more	26	9,23	5,09	10,5	191,29			
The HIV Risk-Taking Behavior Scale	None	192	9,86	4,13	10,5	183,56	9,150	0,027*	1-3
	1	113	10,21	4,28	10	188,00			2-3
	2	55	11,56	4,24	11	232,90			
	3 and more	26	10,85	3,80	11	207,44			
Drug Use Subscale	None	192	0,17	1,34	0	194,01	1,698	0,637	
	1	113	0,19	1,47	0	193,42			
	2	55	0,00	0,00	0	190,00			
	3 and more	26	0,38	1,96	0	197,44			
Sexual Behavior Subscale	None	192	9,69	3,99	10	183,10	10,596	0,014*	1-3
	1	113	10,03	4,04	10	188,08			2-3
	2	55	11,56	4,24	11	237,15			
	3 and more	26	10,46	3,55	10,5	201,50			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the points of the women taken from SRBS and HRBS by number of pregnancy (Table 11). When Table 11 examined, it was found that there is no statistically significant difference between women's number of pregnancies and the points of SRBS ($p > 0,05$). It was figured out that there is statistically significant difference between women's number of pregnancies and the points of HRBS and the points of sexual behavior subscale ($p < 0,05$). Women who have two pregnancies get higher (11,56 points) points from HRBS and from Sexual Behavior subscale than women who have one pregnancy and women who have not any pregnancy.

Table 12. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Number of Abortion

	Number of Abortion	n	\bar{x}	s	M	M.R.	X ²	p
Sexual Risk Behaviors Scale	None	296	9,69	3,65	10	193,78	0,765	0,682
	1	70	9,91	3,48	10	198,01		
	2 and more	20	9,10	4,58	9	173,53		
The HIV Risk-Taking Behavior Scale	None	296	10,21	4,29	11	191,44	0,445	0,801
	1	70	10,46	4,00	11	199,73		
	2 and more	20	10,55	3,58	11	202,20		
Drug Use Subscale	None	296	0,21	1,52	0	194,56	2,162	0,339
	1	70	0,00	0,00	0	190,00		
	2 and more	20	0,00	0,00	0	190,00		
Sexual Behavior Subscale	None	296	10,00	4,09	10	190,23	1,113	0,573
	1	70	10,46	4,00	11	203,66		
	2 and more	20	10,55	3,58	11	206,38		

Table 12 shows the results of Kruskal-Wallis H test on the comparison of women's points taken from SRBS and the HRBS by number of abortions. When Table 12 examined, it was found that there is no statistically significant difference between number of abortion and the points of SRBS and the HRBS including Drug use and Sexual Behaviour subscales ($p > 0,05$).

Women who did not have any abortion and women who have one abortion or women who have two and more abortions, get similar points from the SRBS and the HRBS including Drug use and Sexual Behaviour subscales.

Table 13. The Comparison of Women's Points Taken from Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale by Number of Living Children

	Number of Living Children	n	\bar{x}	S	M	M.R.	X ²	p	Dif.
Sexual Risk Behaviors Scale	None	240	9,31	3,45	10	180,45	8,953	0,011*	1-3
	1	110	10,31	3,77	11	212,62			
	2 and more	36	10,44	4,44	11	222,04			
The HIV Risk-Taking Behavior Scale	None	240	9,94	4,06	11	185,06	4,547	0,103	
	1	110	10,64	4,55	11	202,43			
	2 and more	36	11,36	3,74	11,5	222,47			
Drug Use Subscale	None	240	0,13	1,20	0	193,21	1,216	0,544	
	1	110	0,28	1,76	0	195,28			
	2 and more	36	0,00	0,00	0	190,00			
Sexual Behavior Subscale	None	240	9,81	3,95	10	185,45	4,899	0,086	
	1	110	10,35	4,28	11	200,15			
	2 and more	36	11,36	3,74	11,5	226,82			

* $p < 0,05$

The Kruskal-Wallis H test applied to compare the points of women, taken from the SRBS and the HRBS by number of living children (Table 13). When Table 13 examined, it was found that there is statistically significant difference between number of living children and the SRBS ($p < 0,05$). Women who have two and more living children, get higher points with 10,41 from SRBS then women who have not any living children (9,31 points). There is no statistically significant difference between women's number of living children and the points of the HRBS with its subscales Drug use and Sexual Behaviour ($p > 0,05$).

4.4. Findings for Research Question VI

Would sociodemographic characteristics of migrant sex worker women effect mean score of HIV risk behaviors scale and risky sexual behaviour scale?

Table 14. Correlations between Sexual Risk Behaviors Scale and the HIV Risk-Taking Behavior Scale Scores

		Sexual Risk Behaviors Scale	Drug Use Subscale	Sexual Behavior Subscale	The HIV Risk Taking Behavior Scale
Sexual Risk Behaviors Scale	rho	1			
	p	.			
	N	386			
Drug Use Subscale	rho	-0,063	1		
	p	0,219	.		
	N	386	386		
Sexual Behavior Subscale	rho	0,364	-0,054	1	
	p	0,000*	0,287	.	
	N	386	386	386	
The HIV Risk-Taking Behavior Scale	rho	0,336	0,202	0,961	1
	p	0,000*	0,000*	0,000*	.
	N	386	386	386	386

* $p < 0,05$

Table 14 shows the results of correlations between the SRBS and the HRBS. When Table 14 examined, it was found that there is statistically significant correlation between the SRBS and the HRBS with its subscales Drug Use and Sexual Behaviour ($r=0,961$, $p=0.01$). When women's SRBS points get increase, the HRBS scores with Drug Use subscale and Sexual Behaviour subscale points also get increase statistically significantly.

Chapter V

Discussion

This chapter presents the discussion of contraceptive methods findings, the level of risky sexual behaviors scale and HIV risk taking behaviors scale findings, the relationships between the scoring of the risky sexual behaviors scale, HIV risk taking behaviour scale and socio-demographic characteristics findings in comparison to the studies in the literature.

When the sociodemographic characteristics of the migrant sex worker women included in this study were examined, it is noticeable finding that almost half of them included in this study are in the young group (18-25 years old) and are university graduates (Table 1). It is thought that they could not find a job as soon as they completed their university education or migrated from their country to work in better economic conditions.

In this study, 37,8% of migrant sex worker women have one and more living children. Women who migrate from the country to work may be separated from their children.

Registered sex workers in NC work in nightclubs and pubs under licensed to employ foreign women under a special set of immigration and labor regulations Officially (Güven Lisaniler et al, 2008). Although migrant sex worker women stated that their economic situation is good (Table 1), it is argued that they have been violated by human rights about work permits and working conditions in Güven Lisaniler et al's study (2008). In this study, 37,8% of migrant sex worker women have one and more living children. Women who migrate from the country to work may be separated from their children. Work permits of migrant sex worker are made for 6 months and at the end of 6 months, they have to return to their country for 2 months. Although it is positive for women to go to their countries and meet with their families, this may increase the transmissibility of infectious diseases such as HIV.

5.1. The Discussion on Contraceptive, Level of Risky Sexual Behaviors Scale, and Level of HIV Risk Taking Behavior Scale

In this study, family planning center and friends are the most common sources of information about contraceptive methods. There is no family planning counseling center in NC. Since migrant women are in their own country for 2-4 months each year, they may have received information from family planning centers in their own country.

In this study, almost all of women declared that they are using a contraceptive method now and the first three methods in order used by women using contraception method were condoms, oral contraceptive, and emergency contraception (Table 3). Among the methods they used in this study, it is seen that those who use both oral contraceptives and condoms (Table 3), prevent getting STI. Emergency contraceptive methods should not be included in the most commonly used methods. Besides, in this study, it is seen that one out of every 4 migrant sex worker women has experienced abortion. Because of this issue, it is thought that they have deficiencies in reaching accurate and reliable contraceptive knowledge because they get information from their friends the most (73%) (Table 3). In general, sex workers often have barriers to accessing HIV/STI information, treatment, condoms and reproductive health services (Ferguson et al., 2017; Goldenberg et al., 2016). A study among female sex workers was found that 47.7% of them had a terminated pregnancy (Chanda et al., 2017). This result is high prevalence of pregnancy termination is different from this study. This difference might be due to lack of knowledge of contraceptive methods benefits and legal regulation differences regarding abortion.

According to WHO, female sex workers are estimated to be 30 times more likely to be living with HIV than other women. So, it is suggested some priority health interventions to prevent HIV and other STIs through barrier methods such as condom (WHO, 2020). In this study, 74,3% of migrant sex workers declared that they are using condoms. Although the rate of condom use is not very low, the fact that one out of every 4 women does not use barrier methods increases the risk of STIs. In a systematic literature reviews study, it is stated that female bar workers are offered higher price higher for condom less sex. Also, it was reported that client intentionally broke or removed condoms during intercourse (Dambach et al., 2020; Ferguson et al, 2017).

Therefore, in this study, it is considered important to investigate the causes of women who do not use condoms.

A recent systematic review among migrant Asian women, it was found out that five qualitative studies described women commonly had awareness of contraception pill and/or male condom (Gray et al., 2021). Similar to this study, in Ferguson's review study stated that condom use with brothel-based sex workers was high (Ferguson et al., 2017). Sibanda et al's study found that most (98%) of the participants knows about contraceptive methods and 84.1% of the women are using male condom as it is the most popular contraceptive method of contraception among the women (Sibanda et al 2021). This result also supports findings of this study. In Chanda et al's (2017) study conducted in Zambia, most of contraceptive methods used are injectable (57.8%) and oral contraceptive (27.5%) among female sex workers. And it found that 48.5% of sex workers aren't non barrier contraceptive method. This result is low prevalence of using barrier contraceptive method is different from this study. Compulsory health screenings for women working in nightclubs in NC may have increased their awareness of STI.

Female nightclub and bar workers are a vulnerable group for unplanned pregnancy, HIV and other STIs. Therefore, understanding risk profiles of this group is important to prevent them from risky sexual activities (Dambach et al., 2020). In this study, it was found that women take low point (average $9,70 \pm 3,67$, min.0-mak.20) points from the SRBS and (average $10,27 \pm 4,20$, min.0-mak.25) points from the HRBS (Table 4). The high rate of condom use reflected positively on this study results. In this study, it was found that the risky sexual behavior scale score was low. However, the possibility of unregistered sex workers in the country and the high prevalence of HIV need to be developed to prevent risky sexual behaviors (Sarpkaya Güder, 2021; Gece Klupleri Çalıştay Raporu, 2018). Similar to this study, in a systematic literature reviews study, it is seen that female bar workers had high HIV awareness (Dambach et al., 2020). And same study indicated that sex worker who regulary drink alcohol were seven times less likely to use condoms (Dambach et al., 2020). In a study conducted Thailand by Ayuttacorn et al 2019 among migrant workers found that the level of HIV risk was high (88.3%), is different from this study results (Ayuttacorn et al 2019). There are significant gaps in studies about risky sexual behaviour among sex workers.

5.2. The Discussion the Relationships on Level of Risky Sexual Behaviors Scale, Level of HIV Risk Taking Behavior and Socio-Demographic Characteristics

A review study determined that numerous social and structural factors increase HIV risks for sex workers (Gray et al., 2021). And, some factors might affect risky sexual behaviour. A review study determined that numerous social and structural factors increase HIV risks for sex workers (Gray et al., 2021). In this study was found that there is statistically significant difference between age group, perception of socioeconomic status, number of living children and SRBS ($p < 0,05$). It was found that there is statistically significant difference between number of pregnancy, perception of socioeconomic status, women's years in Northern Cyprus and the points of the HRBS in this study.

The high risk among women with two or more children can be due to their responsibility to take care of their children back home, they can accept to have sex without condom to earn extra money to meet their responsibility, while those women who do not have children will not accept extra money from clients to have sex without condom.

Women who just started working are more careful because they want to continue the sex work with negative test for STDs and HIV, while those women who have spent more than one year are not scared because they are used to the clients and they assumed the clients are safe. Also, If they have a contagious infection, they can be afraid that they will be deported from the country.

It is thought that women with a good income level might access more reproductive health services (accessing the condom) and training, and therefore their level of risky sexual behaviors is low. According a systematic literature review study, it is seen that female bar workers had high HIV awareness (Dambach et al., 2020). The low HIV risk behaviors in this study is considered that women's awareness of HIV might be high. In a study conducted Thailand by Ayuttacorn et al 2019 among migrant workers found that the level of HIV risk was high (88.3%), is different from this study results (Ayuttacorn et al 2019).

Some other studies all of these women are of similar the HRBS with its subscales Drug use and Sexual Behavior, 75% of paid sex was done without condom, 60% under the influence of alcohol (West et al, 2022). Findings from this study shows that when women's SRBS points get increase, the HRBS scores with Drug Use subscale

and Sexual Behaviour subscale points also get increase statistically significantly (Table 14). In similarity to this study, some studies found that sex worker women HIV risk increase when the risky sexual behaviors and drug use increases (Dambach et al., 2020, Ferguson et al, 2017, Sibanda et al, 2021). Dambach et al's study indicated that sex worker who regularly drink alcohol were seven times less likely to use condoms (Dambach et al., 2020). Frequency of sex while under the influence of alcohol and drugs or substances is a significant risky sexual behavior. High alcohol consumption in nightclubs is considered that HIV prevalence can be very common in sex workers who do not use condoms. There are too many university students and migrant workers in NC. It is thought that the presence of these risky groups in night clubs will reveal risky sexual behaviors and increase the rate of HIV, STIs transmission between other countries.

Chapter VI

This chapter presents conclusions based on the research findings according to the objective and sub objective(s) of the research and gives recommendations accordingly.

5.1. Conclusion

- It was found that almost half of migrant sex worker women (52,8%) are 18-25 years old, most of them (69,9%) regularly have partners, 47,6% of them have worked in NC since 1-5 year, 46,1% of them are a university or masters/phd educated and half of them (%50,5) are Christian. And, most of participant (69,9%) women declared that their income exceeds expenses.
- Almost half of participant women (%49,7) didn't get any pregnancy, most of them (76,6%) didn't get any abortion and 37,8% of them have one and more living children.
- It was determined that almost all of women (99,4%) got information about contraceptive methods from mostly (73,3%) family/friends. In this study, almost all of women (%98,7) declared that they are using a contraceptive method now and the first three methods in order used by women using contraception method were condoms (74,3%), oral contraceptive (48,9%) and emergency contraception (13,9%).
- In this study, it is seen that women take average $9,70 \pm 3,67$ (min.0-mak.20) points from the SRBS.
- In this study, it was found that women take average $10,27 \pm 4,20$ points (min.0-mak.25) from the HRBS and take average $10,11 \pm 4,05$ (min.0-mak.20) points from Sexual Behavior subscale.
- It was found that there is statistically significant difference between age group, perception of socioeconomic status, number of living children and that the SRBS ($p < 0,05$). There is no statistically significant between women's relationship status, educational level, number of abortion, religion and the points of the SRBS ($p > 0,05$).

- It was found that there is statistically significant difference between number of pregnancy, perception of socioeconomic status, women's years in Northern Cyprus and the points of the HRBS ($p < 0,05$). And, it was determined that there is statistically significant difference between women's relationship status and the points of Drug Use subscale ($p < 0,05$). It was figured out that there is statistically significant difference between women's years in Northern Cyprus, socioeconomic status, number of pregnancy and Sexual Behavior subscale points ($p < 0,05$).
- There is no statistically significant difference between women's age group, number of living children, relationship status, number of abortion, religion, educational level and the points of the HRBS. ($p > 0,05$).
- It was found that when women's SBRS points get increase, HRBS the ease statistically significantly ($p < 0,05$).

5.1. Recommendations

5.1.1. Recommendations According to Findings

- Family planning counselling services should be started in the venereal diseases polyclinics so that women can get information about contraceptive methods from reliable sources.
- According to the results of this study, risky groups among migrant sex worker women working in nightclubs (such as those over the age of 30, low income, having a high number of pregnancies, working in nightclubs for a long time, using alcohol and drugs etc.) should be determined and awareness seminars, opportunity training on HIV. on HIV and risky sexual behaviour should be organized in this polyclinic once a week. And, it should deliver a brochure to migrant sex worker women during the routine tests.
- Policies and interventions informed by sex worker to encourage HIV prevention and access to reproductive health services is recommended.

5.1.2. Recommendations for Further Research

- It is suggested that further research should be done about risky sexual behaviour among migrant sex worker women working in nightclubs and bar using focus group interview methods
- It is suggested that more research should be conducted on accessing to reproductive health services
- It is suggested that research should be conduct regarding evaluating the relationship between HIV risk taking behaviour and spread of HIV among migrant sex worker women working in nightclubs, Northern Cyprus.

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Appendices

Appendix A

Participant Information Form

- 1- Age:
- 2- Relationship Status:
 - a) Married
 - b) Divorced
 - c) Regularly have a partner
- 3- How many years have you been working in night clubs?
 - a) Under 1 year
 - b) 1-5 year
 - c) 5-10 year
 - d) Over 10 year
- 4- Educational Level:
 - a) Primary
 - b) High school
 - c) University
 - d) Master
 - e) PhD
- 5- Nationality:
- 6- Religion:
 - a) Christian
 - b) Muslim
 - c) Jewish
 - d) Other.....
- 7- Perception of Socioeconomic Status
 - a) Income exceeds expenses
 - b) Income equal to expenses
 - c) Income less than expenses
- 8- Number of pregnancy
 - a) None
 - b) 1
 - c) 2
 - d) 3 and above
- 9- Number of Abortion
 - a) None
 - b) 1
 - c) 2
 - d) 3 and above

10- Type of Abortion (If yes)
Number of spontaneous abortion:
Number of medical abortion:

11- Number of Living Children

- a) None
- b) 1
- c) 2
- d) 3 and above

12- Have you received information about contraceptive methods?

- a) Yes
- b) No

13- Where did you get this information from?

- a) Family, friends
- b) Books, journal etc.
- c) Family Planning Services
- d) Social Media
- e) Others.....

14- Are you using a contraceptive method now?

- a) Yes
- b) No

15- Please, Chose the current you use contraceptive method

- a) Male condoms
- b) Female condoms
- c) Oral contraceptives (birth control pills)
- d) IUD (Intrauterine device)
- e) Birth control patch
- f) Vaginal ring
- g) Spermicidal
- h) Diaphragm
- i) Withdrawal method
- j) Abstinence
- k) Every 3 month-hormone shot
- l) Emergency contraception
- m) Other

Appendix B

Sexual Risk Behaviors Scale (SRBS)

The following questions are about the nature and frequency of your sexual behaviors in the past month. Please read the questions carefully and tick only one box for each question. Remember that your answers are completely anonymous and will not be traceable to you in any way.

1. How often have you had vaginal sex without a condom

Never Rarely Sometimes Often Very Often

2. How often have you had anal sex without a condom?

Never Rarely Sometimes Often Very Often

3. How often have you performed oral sex without protection (condom or dental dam)?

Never Rarely Sometimes Often Very Often

4. How often have you had sex while under the influence of alcohol (i.e. drunk)?

Never Rarely Sometimes Often Very Often

5. How often have you had sex while under the influence of drugs or substances?

Never Rarely Sometimes Often Very Often

6. How often have you had sex without a condom with someone you have just met?

Never Rarely Sometimes Often Very Often

Appendix C

The Hiv Risk-Taking Behaviour Scale

Drug Use Section:

1. How many times have you hit up (i.e. injected any drugs) in the last month?

- Hasn't hit up..... 0
 Once a week or less..... 1
 More than once a week..... 2
 (but less than once a day)
 Once a day..... 3
 2-3 times a day..... 4
 More than 3 times a day..... 5

N.B. IF SUBJECT HASN'T INJECTED IN THE LAST MONTH, SCORE ZERO FOR THE DRUG USE SECTION, AND GO TO QUESTION 7.

2. How many times in the last month have you used a needle after someone else had already used it?

- No times..... 0
 One time..... 1
 Two times..... 2
 3-5 times 3
 6-10 times 4
 More than 10 times..... 5

3. How many different people have used a needle before you in the last month?

- None 0
 One person..... 1
 Two people 2
 3-5 people..... 3
 6-10 people..... 4
 More than 10 people..... 5

4. How many times in the last month has someone used a needle after you have used it?

- No times..... 0
- One time..... 1
- Two times..... 2
- 3-5 times 3
- 6-10 times 4
- More than 10 times..... 5

5. How often, in the last month, have you cleaned needles before re-using them?

- Doesn't re-use..... 0
- Every time..... 1
- Often..... 2
- Sometimes..... 3
- Rarely..... 4
- Never..... 5

6. Before using needles again, how often in the last month did you use bleach to clean them?

- Doesn't re-use..... 0
- Every time..... 1
- Often..... 2
- Sometimes..... 3
- Rarely..... 4
- Never..... 5

Drug Use Sub-total

Sexual Behavior Section:

7. How many people, including clients, have you had sex with in the last month?

- None 0
- One 1
- Two..... 2
- 3-5 people..... 3
- 6-10 people..... 4
- More than ten people 5

N.B. IF NO SEX IN THE LAST MONTH, SCORE ZERO FOR SEXUAL BEHAVIOUR

8. How often have you used condoms when having sex with your regular partner(s) in the last month?

- No reg. partner..... 0
- Every time..... 1
- Often..... 2
- Sometimes..... 3
- Rarely..... 4
- Never..... 5

9. How often did you use condoms when you had sex with casual partners?

- No partners 0
- Every time..... 1
- Often..... 2
- Sometimes..... 3
- Rarely..... 4
- Never..... 5

10. How often have you used condoms when you have been paid for sex in the last month?

- No paid sex..... 0
- Every time..... 1
- Often..... 2
- Sometimes..... 3
- Rarely..... 4
- Never..... 5

11. How many times did you have anal sex in the last month?

- No times..... 0
- One time..... 1
- Two times..... 2
- 3-5 times 3
- 6-10 times 4
- More than 10 times..... 5

Appendix D

**KKTC SAĞLIK BAKANLIĞI**
Dr Burhan Nalbantoğlu
Devlet Hastanesi
Lefkoşa

28.6.2022

Sayı: YTK. 1.01
(EK 23/22)

Sn. Yrd Doç Dr Dilek Sarpkaya Guder

Etik kurulumuzun yapmış olduğu toplantıda "Contraceptive Use, Risky Sexual Behaviours and HIV Risk Behaviours among migrant women workers in Northern Cyprus" isimli projeniz/araştırmanız Etik Kurulunda değerlendirilmiş olup Etik Kurulumuz tarafından uygun görülmüştür.

Bilginize saygılarımızla sunar, kolaylıklar dileriz

Saygılarımla

Etik Kurul Yönetim Kurulu adına
Prof Dr Cenk Conkbayır (Üye)

İLETİŞİM
Tel: +90 392 2285441
Fax : +90 392 2231899
Email: lbndtanitim@gmail.com

Appendix E

Please read my letter of permission for the scale to Fino Gelen Kutusu x



Mamud Tomgba Kargbo <20206121@std.neu.edu.tr>

17 Mart Per 13:36 ☆ ↶ ⋮

Alıcı: ben

İngilizce > Türkçe İletiyi çevir

İngilizce için kapat x

Dear Emanuele Fino , Hello, I am from Near East University in Northern Cyprus. I am a Master Student interested in carrying out a research on **Contraceptive Use and Risky Sexual Behaviors among Konsomatris in Northern Cyprus** as my thesis study. My Advisor is Assistant Professor Dr. Dilek SARPKAYA GÜDER .

Background about Near East University (www.neu.edu.tr). It was established in 1988 and is located in Nicosia, Capital of North Cyprus. It has 19 faculties comprising 220 departments and programs, 8 graduate schools with around 218 graduate and post graduate programs and 3 high schools, 28 research institutes and has several International memberships . Furthermore, the Nursing faculty comprises both Turkish and English programs whereby there are Turkish and foreign students and most of them are from African origin and English speaking students.

I would like to kindly ask for permission to use your Sexual Risk Behavior Scale (SRBS) was originally composed of six items, each measuring a specific sexual risk behavior in your research with doi <https://doi.org/10.1177/01632787211003950> , the article in order to allow me to use your questionnaire in my research to compare differences of Contraceptive use and risky sexual behaviour among Konsomatris in North cyprus and to explore the relationship between their sociodemographic variables in Northern Cyprus please? I look forward to having a positive response from. Thank you for your understanding and interest.

Sincerely, Msc. Mamud Tomgba Kargbo Email: mamudtomgba.kargbo@neu.edu.tr

Mamudkargbo85@gmail.com

20206121@std.neu.edu.tr

Tel: +903558630629

Fwd: Request for Questioner and Risky Sexual behavior **scale** Harfisi Gelen Kutusu x

MAMUD TOMGBA KARGBO <mamudtomgba.kargbo@neu.edu.tr>

17 Mart Pz

Alıcı: ben

İngilizce > Türkçe İletiyi çevir

----- Forwarded message -----

From: Fino, Emanuele <emanuele.fino@ntu.ac.uk>

Date: Thu, Mar 17, 2022 at 5:27 PM

Subject: Re: Request for Questioner and Risky Sexual behavior **scale**

To: MAMUD TOMGBA KARGBO <mamudtomgba.kargbo@neu.edu.tr>

Good Afternoon,

Thank you for your email and the interest in the SRBS.

Sure, please kindly proceed, you can find a copy of the **scale** [here](#).

Good luck with your research.

Best wishes

Emanuele

Emanuele Fino, PhD, CPsychol, SFHEA

Senior Lecturer

NTU Psychology

Windows'u Etkinleştir

TERMS OF USE:

Individuals may use this information for research or educational purposes only and may not use this information for commercial purposes. When using this instrument, please cite:

Darke, S., Hall, W., Heather, N., Ward, J., & Wodak, A. (1991). The reliability and validity of a scale to measure HIV risk-taking behaviour among intravenous drug users. *AIDS*, 5(2), 181.

When presenting results using any survey information you obtained from the SABI, please acknowledge the University of North Carolina at Chapel Hill Center for AIDS Research (CFAR), an NIH funded program P30 AI50410.



UNC CFAR Social and Behavioral Science Research Core
SARI Database

Appendix F

Turnitin Similarity Report

MAMUD THESIS			
ORJİNALLIK RAPORU			
%	11	%	7
BENZERLİK ENDEKSİ		İNTERNET KAYNAKLARI	YAYINLAR
		%	4
		ÖĞRENCİ ÖDEVLERİ	%
			5
BİRİNCİL KAYNAKLAR			
1	Submitted to Yakın Doğu Üniversitesi		%
	Öğrenci Ödevi		3
2	neu.edu.tr		%
	İnternet Kaynağı		2
3	docs.neu.edu.tr		%
	İnternet Kaynağı		1
4	Submitted to Bournemouth University		%
	Öğrenci Ödevi		1
5	H. Surratt. "Sex work in the Caribbean Basin: Patterns of substance use and HIV risk among migrant sex workers in the US Virgin Islands", AIDS Care, 2007		<%
	Yayın		1
6	mafiadoc.com		<%
	İnternet Kaynağı		1
7	Joshua D. Harsin, Brett W. Gelino, Justin C. Strickland, Matthew W. Johnson, Meredith S. Berry, Derek D. Reed. "Behavioral economics and safe sex: Examining condom use decisions from a reinforcer pathology		<%
			1

framework", Journal of the Experimental
Analysis of Behavior, 2021

Yayın

- | | | |
|----|--|------|
| 8 | Mohsen Naserirad. "Adverse Childhood Experiences and HIV Risk Behaviors in Young Adult Afghan Immigrants to Eastern Iran", Global Social Welfare, 2019
Yayın | <% 1 |
| 9 | www.slf.ch
İnternet Kaynağı | <% 1 |
| 10 | Linda Gowing. "Substitution treatment of injecting opioid users for prevention of HIV infection", Cochrane Database of Systematic Reviews Reviews, 04/23/2008
Yayın | <% 1 |
| 11 | research.vu.nl
İnternet Kaynağı | <% 1 |
| 12 | Submitted to University of the Western Cape
Öğrenci Ödevi | <% 1 |
| 13 | www.emeraldinsight.com
İnternet Kaynağı | <% 1 |
| 14 | James Shearer. "Contemporary cocaine use patterns and associated harms in Melbourne and Sydney, Australia", Drug and Alcohol Review, 9/2007
Yayın | <% 1 |

15	www.wien.gv.at İnternet Kaynağı	<% 1
16	lrd.yahooapis.com İnternet Kaynağı	<% 1
17	pure.solent.ac.uk İnternet Kaynağı	<% 1
18	Dentato, Michael P.. "Social Work Practice with the LGBTQ+ Community", Social Work Practice with the LGBTQ+ Community, 2022 Yayın	<% 1
19	islamicmarkets.com İnternet Kaynağı	<% 1
20	Brandon DL Marshall, Thomas Kerr, Jean A Shoveller, Julio SG Montaner, Evan Wood. "Structural factors associated with an increased risk of HIV and sexually transmitted infection transmission among street-involved youth", BMC Public Health, 2009 Yayın	<% 1
21	agenciaBrasil.ebc.com.br İnternet Kaynağı	<% 1
22	Submitted to Middle East Technical University Öğrenci Ödevi	<% 1
23	Submitted to Universiti Teknologi Malaysia Öğrenci Ödevi	<% 1

24	healtheducationonwheels.org İnternet Kaynağı	<% 1
25	Submitted to Florida International University Öğrenci Ödevi	<% 1
26	tailieu.vn İnternet Kaynağı	<% 1
27	www.fau.edu İnternet Kaynağı	<% 1
28	www.openj-gate.com İnternet Kaynağı	<% 1
29	msf.org.uk İnternet Kaynağı	<% 1
30	optn.transplant.hrsa.gov İnternet Kaynağı	<% 1
31	www.coursehero.com İnternet Kaynağı	<% 1
32	Amanda Baker. "Drug use patterns and mental health of regular amphetamine users during a reported 'heroin drought'", <i>Addiction</i> , 7/2004 Yayın	<% 1
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