

Psychosocial Challenges as Predictors of Life Satisfaction and Coping Strategies Among Female Sex Workers: A Mixed Design Study

Fasil Asmamaw Tesfaw^{1*}, Dr. Dipal Patel²

¹Parul University, Faculty of Liberal Arts, Limda, Waghodiya, Vadodara -391760, Gujarat – India,

Email ID: gieda1999@yahoo.com

²Parul University, Faculty of Liberal Arts and Departement of Psychology, Limda, Waghodiya, Vadodara -391760, Gujarat – India,

Email ID: dipalsdpatel9@gmail.com

Cite this paper as: Fasil Asmamaw Tesfaw, Dr. Dipal Patel, (2025) Psychosocial Challenges as Predictors of Life Satisfaction and Coping Strategies Among Female Sex Workers: A Mixed Design Study. *Journal of Neonatal Surgery*, 14 (31s), 397-419.

ABSTRACT

The purpose of the study was to examine the influence of psychosocial challenges on the life satisfaction and coping strategies among female commercial sex workers in Hawassa City Administration. Mixed approach with concurrent design was applied integrating quantitative data with the qualitative data simultaneously. Two hundred sixty five randomly selected and sixteen purposely selected participants involved in the study. Data was collected through questionnaires and Focus Group Discussion (FGD). Quantitative data was analysed through multiple regression, but the qualitative data was analysed through thematic content analysis. The findings demonstrated that there was main effect of stigma-discrimination on the life satisfaction of FSW with 22% (R-Square= .22, F (1,264) = 74.43, Beta = -.47, p = .000. In addition to interaction effects were found between stigma-discrimination and risk sexual behaviours, 31% (R-Square= .31, F (2,262) = 56.68, Beta = -.70; p = .000 as well as the interaction effect between stigma-discrimination, risky sexual behaviours and stress with 32% (R-Square= .32, F (3,261) = 40.42, Beta = -.71; p = .000. Concerning the impacts of psychosocial challenges on coping strategies, risky sexual behaviour had main effect 18 % (R -Square= .18, F = (1,264) = 57.88 Beta = -.43, P = .000; the combination of risky sexual behaviours and stigma-discrimination was 22% (R-Square= .22, F (2,262) = 35.94, Beta = -.57; p = .000; and the interaction effect of risky sexual behaviours, stigma-discrimination and stress had 24% (R-Square= .24, F (3,261) = 26.86, Beta = -.66; p = .000. Additionally, the findings derived from the qualitative approaches supported the findings obtained from the quantitative data. Implications are discussed to mitigate psychosocial challenges among FSW to ensure their life satisfaction and coping strategies.

Keywords: Stigma-discrimination, risky sexual behaviours, stress, life satisfaction, coping strategies.

1. INTRODUCTION

The psychological well-being of FSWs has become a significant health concern in numerous low- and middle-income countries (Beattie et al., 2020; Martín-Romo et al., 2023; Zehnder et al., 2019). Significant risk factors for this condition include poverty, low education, violence, drug and alcohol abuse, HIV, stigma, and discrimination. Further evidence that psychosocial issues among FSW are frequently caused by witchcraft came from a Kenyan study. Remarkably, detrimental gender norms, low educational attainment, poor employment prospects, family bereavement, intimate partner violence and the ensuing breakup of relationships, and poverty all contributed to poor mental health and the subsequent decision to enter the sex industry (Panneh et al., 2022). In the current study psychosocial challenges are taken into account as a comprehensive construct including risky sexual behaviors, drug abuse, stress, depression, and stigma-discrimination. Empirical evidences are explored that capture the global and contextual reality associated with each of these ideas.

1.1 Influence of psychosocial challenges on life satisfaction and coping strategies

1.1.1 Impacts on life satisfaction

According to López-Gómez et al. (2023) life satisfaction (LS) is the evaluation of one's own life involving a global complicated evaluation that includes comparing parts of life to ideal standards, social comparison, aspirations and objectives, one's past circumstances, and one's requirements. Another literature defines life satisfaction as the degree to which an individual can achieve their full potential and accept the status of life (Methasaari et al., 2018; Sousa & Lyubomirsky, 2001).

In this view, people's ultimate goal is to be satisfied with their lives. Everyone makes an effort to produce it in different ways, including FSW. But what is the level of life satisfaction among FSW? Which factors affect their level of life satisfaction? Studies show that FSW have varying degrees of life satisfaction. For instance, research conducted in India revealed that the FSW's life satisfaction level was 54% (Vennila&Sethuramalingam, 2020); while, in another study it was found that 6% of participants had life satisfaction scores that were marginally below average (Marboh& Ali, 2021). Unfortunately, research on the level of life satisfaction among African FSW is still lacking.

The life satisfaction of FSW is affected by various factors. One of these factors is stigma and discrimination (Baker et al., 2004; Lakshmana & Dhanasekara, 2012). A study from Thailand shown that FSW are unhappy in various areas of their lives due to relative income, marital status, and working conditions), but mostly they were less satisfied with feeling like they belong in the community (Monk-Turner, 2013). Moreover, in Nicaragua (Cox, 2012) FSW are dissatisfied due to poor social support, in Switzerland (Zehnder et al., 2019) and Hong Kong (Ma & Loke, 2019) due to stigmatized access to health care services; and in Australia (Rayson & Alba, 2019) because of social isolation. Studies conducted in South Africa beyond life satisfaction stigma/discrimination has adversely affecting FSWs quality of life (Chen et al., 2022). Moreover, severe level of dissatisfaction and related psychosocial challenges are reported among migrant sex workers as in the Cameroonian female migrants in Chad (Mutola et al., 2022). Furthermore, the daunting circumstances of FSW due to stigma and discrimination also documented in Ethiopian (Getnet & Damen, 2012; Mazeingia & Negesse, 2020).

Risky sexual behaviors and the nature of the job can impact on the life satisfaction of FSW. For instance, in a study from South Africa the life satisfaction of FSWs is low because adverse working environments like engagements in risky sexual behaviors which lead them to health problems including HIV and AIDS (Chen et al., 2022). Another study from India demonstrated that terrible working circumstances are causing FSW dissatisfaction which affecting their life in developing mental health issues such as stress, depression, and drug usage (Susan et al., 2014).

Generally, different forms of risk sexual practices directly and/or indirectly affect the life satisfaction of FSW. These are documented in different sources; for example, (Salazar et al., 2011) in United States of America and (Zhou et al., 2020) in China shown that majority of FSW who engage in oral sex experience one or more RHP which has a debilitating effect on FSWs' life. Similarly, other forms risk sexual practices such as anal sex causing health complications such as rectal surgery and other forms contagious diseases (Priddy et al., 2011) in Kenya and (Mehret et al., 2017) in Ethiopia. Furthermore, sex practice without protection such as condom failure, inconsistent condom use and sex with multiple sexual partners make FSW feel hesitated and frustrated about their current and future life since they feel that they contracted disease. This was documented in different literatures from Netherlands (van Veen, Götz, van Leeuwen, 2010), in Nigeria (Okafor et al., 2017) and in Ethiopia (Amogne et al., 2019; Tadesse et al., 2016).

Stress and other mental health issues are highly prevalent among FSW (Martín-Romo et al., 2023a) and that adversely impacts on the life satisfaction of FSW. In this regards (Susan et al., 2014), poor working conditions lead to stress, depression, and drug usage which in turn lead to deprived life satisfaction. Another studies from India also shown that psychological stressors negatively correlated with the life satisfaction of FSW (Adhikari, 2016; Marboh & Ali, 2021). Besides, other literatures demonstrate psychosocial challenges are interdependent and that one form of psychosocial challenges causes the other. For example, stigma and discrimination Australia is causing FSW to experience mental health problems such as anxiety, depression and social isolation which in turn leads to low quality of life (Rayson & Alba, 2019).

1.1.2 Impacts on coping strategies

Coping strategies are described as behavioral and cognitive techniques applied to the handling of situations, demands, and conditions deemed upsetting (Carr & Pudrovska, 2007). According to Stephenson and DeLongis (2020), these abilities are attitudes and actions utilized to control internal as well as external demands of a stressful situations. Coping strategies are different in type. These are: emotion-focused coping such as avoidance, withdrawal, expressing emotion, and substance use; problem-focused coping like seeking information, taking direct action, chucking activities; and social support; religious coping; and meaning making (Aldwin & Yancura, 2004; Chen, 2016; Wu et al., 2020).

Sexual workers utilize a range of coping strategies in their daily life. In this regards, there are conflicting research findings from over the globe. With some FSW use constructive coping techniques while others use destructive ones. A study from Spain states that FSW's affective state determines which coping strategies they use: positive coping strategies are applied when they are in a good mood, while negative coping strategies are applied when they are in a disturbed mood (Puente-Martínez et al., 2019). To the contrary, there are few studies that show mix of findings that FSW apply mixed coping skills. This was confirmed in studies of Kluczevska's (2023) in Tajikistan hiding, forming relationships with powerful clients, and seeking companionship with other sex worker. In line to this Bellhouse et al. (2015), in Australia mentioned take frequent breaks at work, set physical boundaries between work and home, arrive on time for sessions, conceal their appearance, and refrain from forming emotional relationships with their clients. This was further substantiated by a study from Hong Kong was found that while some female sex workers lacked resilience, others did so by being able to justify their job, have faith in their capacity to improve their circumstances, and maintain optimism (Yuen et al., 2014a).

While some research suggests that FSWs employ integrated coping strategies, most studies show that they use negative coping strategies to deal with risky situations including stigma and discrimination. Studies from Bangladesh (Stilinski&Oluwaseyi, 2024), South Africa (Stockton et al., 2020), Hong Kong (Ma &Loke, 2019), China (Zhang et al., 2015), and the United States of America (Hulland et al., 2015) have all verified this. Furthermore, stress is another element that negatively impacts FSW's coping skills. This was confirmed by the fact that intervention studies were carried out to assist FSW in developing coping mechanisms because of their poor coping ability level. For instance, mindfulness in China (Tam et al., 2022) and stress management techniques in Indonesian (Ismail et al., 2018). Additionally, research from African countries was highlighted, including transference from Kenya (Robinson &Yeh, 2012), substance use from Ethiopia (Mazeingia&Negesse's, 2020; Addisalem, 2020), broken social support from Malawi (Ruegsegger et al., 2021), and suppression of painful life materials from South Africa (Floyd et al., 2010).

2. METHODS

2.1 Design

The study incorporated a concurrent mixed design, which adopts a distinct philosophical paradigm despite pragmatism being its fundamental underpinning. That is, the quantitative approach with a positivist paradigm and the qualitative approach with an interpretative paradigm were conducted simultaneously. In order to achieve a comprehensive understanding, the author employed a concurrent mixed design, conducting both the quantitative and qualitative studies simultaneously. This approach involves a mixing of the data-gathering instruments, interpretations, and discussions of results from the overarching design. Specifically, it entails utilizing quantitative instruments such as questionnaires and scales in conjunction with a Focus Group Discussion (FGD) guideline, and combining the findings of the quantitative results with themes and sub-themes was derived from the qualitative results. Figure 1 provides a visual representation of the design.

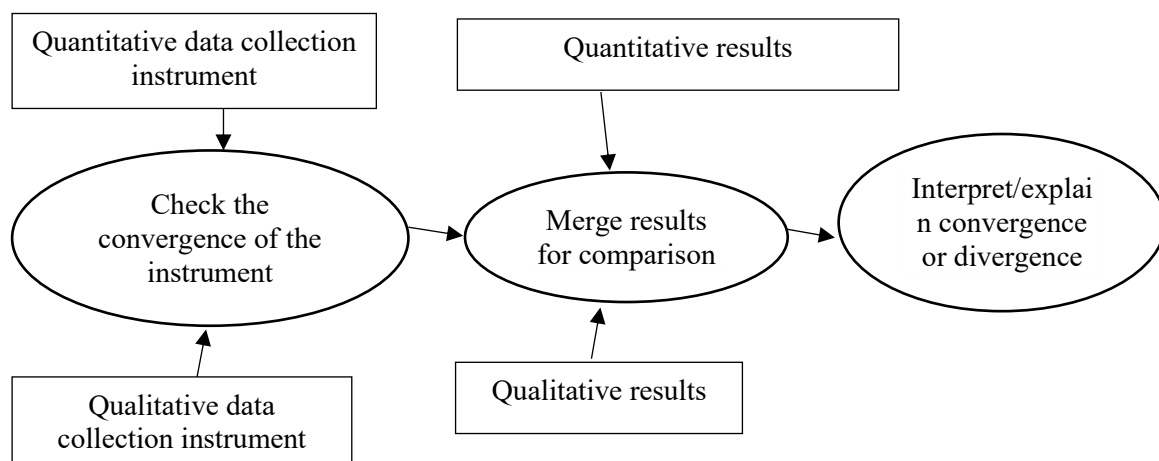


Figure 1 Parallel/Convergent Mixed design of the study

2.2 Study setting

The study was conducted in Hawassa City Administration (HCA), which is explained in terms of various growing circumstances. The city administration is divided into eight sub-cities, consisting of 32 smaller administrative units called Kebele (Regassa & Regassa, 2015; Ross et al., 2016). The distribution of the eight sub-cities and the number of Kebeles can be seen in Figure 2.



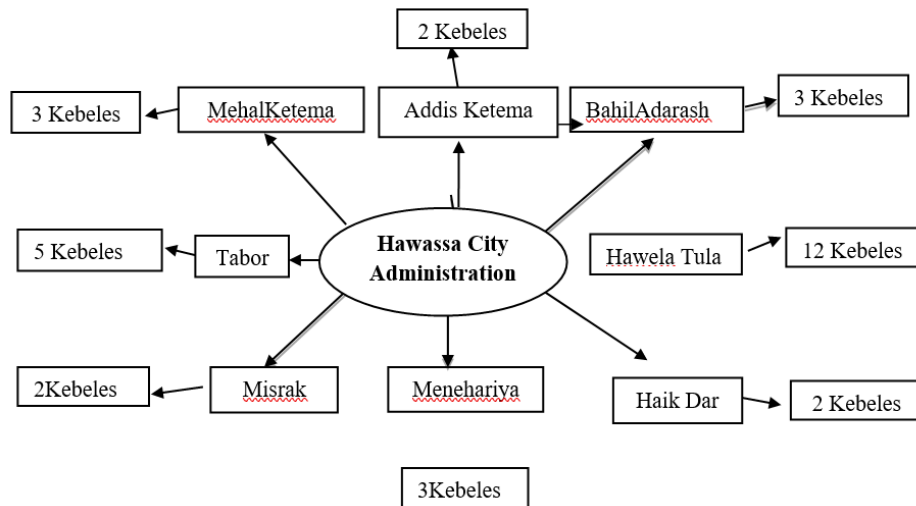


Figure 2 Administrative elements of Hawassa City Administration

Unemployment is a pressing issue in Hawassa city, similar to other major cities in Ethiopia. The city has become a hub for a significant number of unemployed young individuals (Belay & Alemu, 2018). A study conducted by Kassa (2012) revealed that the unemployment rate among youths in the 15-19 age group has risen to 53.8% in Hawassa city.

The situation concerning women in Ethiopia, specifically in Hawassa City Administration, presents a complex scenario. For instance, a comprehensive analysis revealed that the prevalence of workplace sexual violence against women stood at 22%, encompassing 14.1% attempted rape, rape, and 33.2% sexual harassment among female university staff at a rate of 49%, and among commercial sex workers at a rate of 28% in Ethiopia (Worke et al., 2020). In a similar context, Hawassa City serves as a popular tourist destination and experiences rapid urbanization in Ethiopia, which may contribute to challenges faced by women and girls. In this regard, a study conducted in 2019 highlighted a significant number of reported cases of Sexual Violence against Women and Girls (SVAWG) within the Hawassa City Administration (UN Women in Africa, 2023). Furthermore, additional studies have shed light on various forms of violence endured by women, such as those working in the Hawassa industrial park (Joba, 2022), night college students (Esayas et al., 2023), and domestic violence towards housemaids that often remains concealed (Kassa et al., 2023).

The conditions become more severe when it comes to FSWs. Research indicates that FSWs face various challenges due to their demographic background, which includes a low level of education, immaturity, impoverished working environments, poverty, and associated health issues. For instance, a study conducted in a city revealed that out of a total of 338 FSWs, only 59.2% had received no formal education (Tadele et al., 2019). Another study by Fanda (2019) highlighted that young women involved in CSWs are at a high risk of being deprived of formal education. Furthermore, a comprehensive study conducted in Ethiopia focused on FSWs and found that factors such as age, educational status, monthly income, condom failure, age at the first sexual encounter, and prolonged duration of sexual activity significantly predict reproductive health problems (Wariso et al., 2023). Additionally, a study conducted by Nathan and Fratkin (2018) in Hawassa city demonstrated that women are driven to engage in sex work on the streets due to a combination of poverty, abuse, violence, loss of family support, illness, and lack of social support.

2.3 Target population

In total, there are approximately 548 FSW in three specific sub-cities within the Hawassa city administration. Out of these, there are 231 FSWs in Bahiladarash, 203 FSWs in Menehariya, and 114 FSWs in Misrak sub-city. The distribution of participants across the sub-cities and small administrative units can be visualized in Table 1.

Table 1 Population Frame

Sub-City	Kebele	N	Sub-City	Kebele	N	Sub-city	Kebele	N
Bahiladarash	Andinet	61	Menehariya	Piazza	83	Misrak	Wukro	49
	Adare	98		Millinium Square	72		Tesso	65
	Harere	72		Guwe	48			
Total		231	Total		203	Total		114

2.4 Sample size and sampling techniques

In total, there were 282 individuals participating in the study, where 274 belong to the FSW category. Out of these participants, 266 took part in the quantitative design, while the remaining 8 engaged in FGD. On the other hand, there were 8 stakeholders and community members participated in FGD as well.

Since the study adopts a mixed approach, a combination of both probability and non-probability sampling techniques were utilized. Initially, considering the population size as shown in Table 1, a total of 266 participants were selected using a multistage probability sampling technique. This technique involves the use of proportional stratified sampling followed by cluster sampling. To address this issue and ensure representative sampling, the following sampling procedures have been implemented.

$$n = \frac{NZ^2P(1-P)}{E^2(N-1) + Z^2P(1-P)}$$

Equation 1 Formula for sample size determination

Consider the situation where the proportions of a population, denoted as "p" and "q", are valued at 50%. These proportions indicate the amount of variability within the population regarding an unknown level of experiences. To calculate a 95% Confidence Interval, a Z-value of 1.96 is utilized. Additionally, the sample size is represented by "n", while "E2" represents the accuracy of the sample proportion, the level of precision, or the margin of error. Hence, this information leads us to the following conclusions:

$$n = \frac{548(1.96^2)0.5(1-0.5)}{0.05^2(548-1) + 1.96^2 * 0.5(1-0.5)} = \frac{526.2992}{2.3279} \approx 226$$

The FSW sample size is 260 when the 15% response rate is added. The proportion became $n/N = 266/548 \approx 0.485$ given the proportional of the sample size from each stratum - small administrative unit. The sample frame is shown in the following Table 2 below.

Table 2 Sample Frame

Sub-City	Kebele	N	Sub-City	Kebele	N	Sub-city	Kebele	N
Bahiladarash	Andinet	30	Menehariya	Piazza	40	Misrak	Wukro	24
	Adare	48		Millinium Square	35		Tesso	32
	Harere	35		Guwe	23			
Total		113	Total		102	Total		56

Conversely, two individuals from every local administrative unit were chosen among the sixteen participants to participate in FGD. The purpose of the FGD is to explore views of the community and FSWs towards sex work and sex workers along with difficulties they face, their life satisfaction and coping strategies.

2.5 Inclusion and exclusion criteria

Prior to collecting data, participants' inclusion and exclusion criteria are established. The following inclusion and exclusion criteria are set. Table 3 is shown below.

Table 3 Inclusion and exclusion criteria

Characteristics	Inclusion criteria	Exclusion
Gender	Female	Male, and transgender
Age	Above 18	Below 18
Type and place of sex work	club/pub/bar/karaoke bar/dance hall	Street sex work, escort, private, window/doorway, brothel(house where sex is commercialized), door knock or hotel, transport
Residence	Hawassa: Bahiladarash, Menehariya and Misrak sub-cities	Hawassa: Addis Ketema, Tabor, Tula, Haykdar, and Mehalketema

Duration of living in the sub-cities	Six month above	Below six month
--------------------------------------	-----------------	-----------------

2.6 Data collection instruments

2.6.1 Questionnaire

In this study questionnaire to gather information from 266 FSW on their demographic, outcome, and predictive variables were applied. A mix of items where some are self-constructed, yet the other are adapted from sources. In contrast to the two criteria variables, life satisfaction and coping strategies, there are five predictive variables: risky sexual behaviours, stress, depression, drug abuse, and stigma/discrimination.

To assess the majority of psychosocial challenges on FSW one comprehensive document was used (International Initiative for Impact Evaluation (3IE) (2016) which has been commonly applied in different east African nations such as Kenya, Uganda and Zambia. This document includes nine assessment items on risky sexual behavior that were structured in a form of closed ended such as "never" to "prefer not to answer". Similarly, ten depression items with the responses range from "not at all" to "prefer not to answer", **seven modified items on drug abuse with rating scale from "does not use drug" to "prefer not to answer"** and eleven items where some are self-constructed with the scale levels from "never happened" to "prefer not to answer" were used. Besides, the items substantially provide options for the participants to rate their neutrality as well. On the other hand stress was assessed through nineteen closed ended items ratings from "no never" to "prefer not to answer" items which were adapted from Frantz and Holmgren, (2019).

Life satisfaction instrument is adapted from widely used instrument and its psychometric qualities are tested across different contexts (Fugl-Meyer et al., 1991). To assess coping strategies of FSW items are adapted from Green and Ross (1996). There are thirteen items in the instrument measured on a five scale from "never true for me" to "always true for me"

2.6.2 Focus Group Discussion

FGD to generate qualitative data was conducted with sixteen participants. There are demographic questions, yet then there are six major areas (psychosocial challenges: work stress, depression, drug abuse, and stigma-discrimination), life satisfaction, coping strategies and perceptions.

The items are all self-constructed closed and open ended providing probing questions for the participants.

2.7 Pilot test

2.7.1 Content validity of the instruments

Other social psychologists examined each item from all data gathering tools. The experts examined the relevance of each item in assessing the necessary components, the sufficiency of the number of items in each instrument, the manner in which each item expresses the necessary issue, and their suitability of each item in terms of the participants' socio-cultural contexts. The experts' recommendations were taken into consideration, and changes were made. On the other hand, language experts observed at the instrument's linguistic components since there were back-and-forth translations between English and Amharic. The instruments were correctly administered by experts from the beginning of data collection to the release of test results and then carefully monitored and precisely documented.

2.7.2 Reliability of the instruments

The surveys were completed by 40 FSW or 15% of the total 266 FSW from the Hawassa City Administration, and the reliability test was conducted using item-to-total correlation. Cronbach (1951) defined a good item as having a corrected item-to-total correlation of $r = 0.30$, but the composite instrument should have an internal consistency coefficient of $r = 0.70$ to 0.90 (Taber, 2018; Tavakol & Dennick, 2011). Despite the fact that another publication (Sekaran & Bougie, 2016) established a tolerable margin of consistency coefficient, $r = 0.60$ is acceptable, for adapted instruments. Taking this into account, Table 4 displays the findings.

Table 4 Reliability statistics of the variables

Variables	Total items before analysis	Cronbach Alpha before item removal	Total items removed	Total items accepted	Cronbach Alpha after item removal
Risky Sexual Behaviour	9	.48	2	7	.72

Drug Abuse	7	.81	0	7	.81
Depression	11	.49	6	5	.65
Stigma and Discrimination	11	.43	6	5	.61
Stress	19	.64	7	12	.73
Life Satisfaction	8	.70	1	7	.74
Coping Strategies	12	.85	0	12	.85

The results from the above Table demonstrated that risky sexual behavior had 9 items with $\alpha = 0.48$ at first, but 2 items were later removed, resulting in $\alpha = 0.72$; drug abuse had 7 items that later changed into $\alpha = 0.81$ without item deletion; depression had 11 items with $\alpha = 0.49$, but 6 items were later avoided, resulting in $\alpha = 0.65$; stigma and discrimination had 11 items with $\alpha = 0.43$, but 6 items were removed, resulting in $\alpha = 0.61$; and stress was measured using 19 items with $\alpha = 0.64$, but 7 items were later removed, resulting in $\alpha = 0.74$. Concerning life satisfaction measure comprised eight items with an alpha coefficient of 0.70; removing one item increased the alpha coefficient to 0.74. The coping strategy measure used twelve items, and the reliability analysis generated a result of 0.84 without item removal. As a result, through these processes the instruments were validated and adapted to the current study participants.

2.8 Methods of data analysis

Data analysis was carried out using two ways. Inferential methods were used to examine quantitative data collected from 266 FSWs. Linear multiple regressions were used to examine the impact of psychosocial challenges on FSW's life satisfaction and coping strategies. On the other hand, the themes and sub-themes that arose from the qualitative FGD were integrated with the quantitative data. The qualitative data was organized into three themes: Theme 1: Psychosocial challenges, Theme 2: Life goals and Theme 3: Response to life challenges. The first theme has five sub-themes: risky sexual behaviors, substance abuse, stress, sadness, and stigma-discrimination. The second theme was life satisfaction, and the third theme was coping mechanisms. Figure 3 depicts the themes and sub-themes of qualitative data.

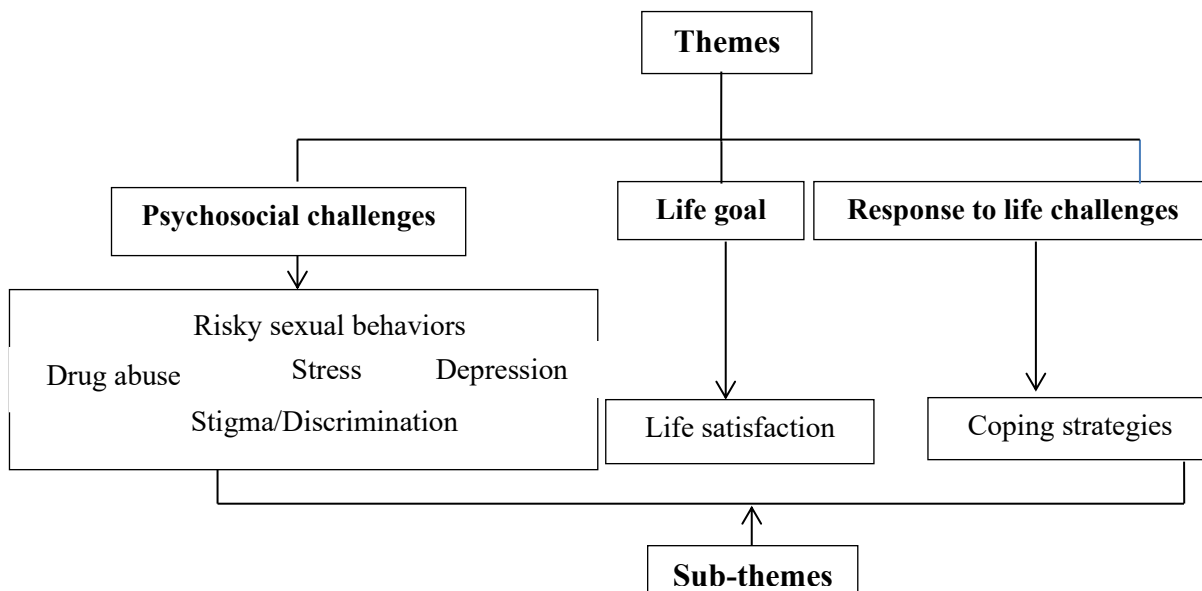


Figure 3 Themes and sub-themes of data

2.9 Ethical consideration

Parul University provided ethical approval. Furthermore, informed consent from participants was obtained. Additionally, each participant's identities, privacy, and confidentiality were protected. To maintain anonymity, participants agree not to share any personal information, including their identities. Furthermore, participants had the opportunity to choose whether or not to participate in the study.

3. RESULTS

3.1 Demographic information of the participants

Frequency distributions of each demographic variable were analysed and presented in the following table.

Table 5 Relevant demographic characteristics of the participants

Variables	Category	N	%	Variable	Category	N	%
Age	Early Adulthood	240	91	Current Marital Status	Married	9	3.40
	Middle Adulthood	25	9		Divorced	10	3.77
	Total	265	100		Unmarried	246	92.83
Educational Status	Illiterate	11	4.15		Total	265	100
	Elementary	70	26.42	Previous Marital Status	Married	8	3.02
	Junior	80	30.19		Divorced	10	3.77
	High School	104	39.25		Unmarried	247	93.21
	Total	265	100		Total	265	100
Income	Low	265	100	First time sex	Genital	241	90.94
	Middle	0	0		Anal	3	1.13
	High	0	0		Genital and anal	19	7.17
	Total	265	100		Genital and Oral	2	0.76
					Total	265	100

Table 5 above demonstrates, age, 240 (91%) which shows the majority of the participants were early adults which calls for proactive and focused intervention for the women at this age keep them away from joining sex work. In relation to educational status, 104 (39%) of the participants had completed secondary school, indicating that commercial sex work is not limited to illiterates and those with lower grade levels. On the other hand, the World Bank defines poverty as having an income less than \$2, and all of the participants in this study had a low income. The findings have implications for women's participation in sex work, with a lack of resources and money being a potential cause. In terms of present and prior marital status, 246 (92.83%) and 247 (93.21%) of FSWs were unmarried. The findings indicate that only a small proportion of married women engaged in sex work.

3.2. Descriptive and correlation among the main study variables

The descriptive statistics mean and standard deviations were analyzed, and the Pearson correlation coefficient was applied to determine the relationship between the variables. The results are shown in Table 6 below.

Table 6 Descriptive and Correlation among the major study variables, N = 265

Variable	Mean	SD	1	2	3	4	5	6	7
Risky Sexual Behaviors	8.11	1.30	-	.03	.31**	.03	.30**	-.40**	-.50**
Drug Abuse	23.30	4.20		-	.20	.34**	-.01	.04	.07
Stress	37.90	5.40			-	.40**	.30**	-.40**	-.30**
Depression	14.20	1.20				-	.20**	-.13*	-.06
Stigma-Discrimination	17.60	1.40					-	-.47**	-.30**
Life Satisfaction	10.10	2.90						-	.50**
Coping Strategies	16.70	3.20							-

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

*. Correlation is significant at the 0.05 level (2-tailed).

A positive moderately significant relationship was found between risky sexual behaviors with stress ($r = .31$), and with stigma-discrimination ($r = .30$); drug abuse and depression ($r = .34$), and stress and depression ($r = .40$). Furthermore, there was a moderate positive relationship was found between life satisfaction and coping strategies ($r = .50$). On the other hand, moderately significant negative correlations were found between the variables: risky sexual behavior with life satisfaction ($r = -.40$), and with coping strategies ($r = -.50$); stress and life satisfaction ($r = -.40$), and with coping strategies ($r = -.30$); depression and life satisfaction ($r = .13$), stigma/discrimination with life satisfaction ($r = -.47$), and with coping strategies ($r = -.30$).

3.3. Impacts of psychosocial challenges on the life satisfaction and coping skills of FSW

The intention of the study was to examine the impacts of risk sexual behaviours, drug abuse, depression, stress and stigma-discrimination on the life satisfaction and coping strategies of the study participant. For this purpose, the following general research question was set for enquiry.

“Which psychosocial challenges significantly influence the life satisfaction and coping strategies of female commercial sex workers in Hawassa City Administration?”

3.3.1 Impacts of psychosocial challenges on the life satisfaction of FSW

Stepwise multiple regressions were conducted to examine the effects of the independent variables on the dependent variables. The sections below demonstrate the findings.

A. Model Summary

Table 7 Model summary

Model	R	R ²	Adjusted R ²	SE	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.47 ^a	.22	.22	2.60	.22	74.43	1	263	.000
2	.55 ^b	.31	.30	2.40	.08	30.57	1	262	.000
3	.56 ^c	.32	.31	2.40	.02	5.8	1	261	.017

a. Predictors: (Constant), Stigma-Discrimination

b. Predictors: (Constant), Stigma-Discrimination, Risky Sexual Behaviors

c. Predictors: (Constant), Stigma-Discrimination, Risky Sexual Behaviors, Stress

d. Dependent Variable: Life Satisfaction

R-Square: As stated in the model summary above, the value of R-Square for stigma-discrimination on FSW life satisfaction was .22. This means that stigma-discrimination accounts for 22% of the entire variation in life satisfaction FSW. On the other hand, the combination of stigma-discrimination and risky sexual behaviors accounted for R square .30, implying that 30% of the variation in the FSW life satisfaction was due to the combined effect of stigma-discrimination and risky sexual behavior. In the third model, stigma-discrimination, risk sexual practices, and stress were combined to have an impact on the FSW's life satisfaction with an R-square of 0.32. That is, 32% of the variability in the FSW's life satisfaction was ascribed to the interaction impact of stigma/discrimination, risky sexual practices, and stress.

B. ANOVA

Table 8 ANOVA results

Model	Sum of Squares	df	Mean Square	F	Sig.
-------	----------------	----	-------------	---	------

1	Regression	491.298	1	491.298	74.43	.000 ^b
	Residual	1736.038	263	6.601		
	Total	2227.336	264			
2	Regression	672.659	2	336.330	56.68	.000 ^c
	Residual	1554.676	262	5.934		
	Total	2227.336	264			
3	Regression	706.545	3	235.515	40.419	.000 ^d
	Residual	1520.790	261	5.827		
	Total	2227.336	264			

a. Dependent Variable: Life Satisfaction

b. Predictors: (Constant), Stigma-Discrimination

c. Predictors: (Constant), Stigma-Discrimination, Risky Sexual Behaviors

d. Predictors: (Constant), Stigma-Discrimination, Risky Sexual Behaviors, Stress

Table 8 displays the overall significance in the regression analysis with one main effect, stigma-discrimination, on FSW life satisfaction, $F(1,264) = 74.43$, $p = .000$. The other are, interaction effect between stigma-discrimination and risky sexual practices, $F(2,262) = 56.68$, $p = .000$; stigma/discrimination, risky sexual behavior, and stress, $F(3,261) = 40.42$, $p = .000$.

C. Coefficients

This section discusses how much of a change in the predictor variable affects the outcome variable. The results are shown in Table 9.

Table 9: The Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	SE				Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	27.01	2.00		13.800	.000	23.14	30.90		
	Stigma-Discrimination	-.96	.11	-.47	-8.63	.000	-1.18	-.74	1.00	1.00
2	(Constant)	29.67	1.09		15.400	.000	25.87	33.46		
	Stigma-Discrimination	-.81	.11	-.40	-7.71	.000	-1.11	-.66	.94	1.06

	ination	1	1		4 0	0 0	03	0		1 0
	RiskySexual Behavior	-.66	.12	-.30	-.553	.000	-.90	-.43	.94	1.10
3	(Constant)	30.99	2.00		15.54	.000	27.08	34.91		
	Stigma-Discrimination	-.77	.11	-.30	-.701	.000	-.99	-.55	.92	1.10
	RiskySexual Behavior	-.58	.12	-.26	-.474	.000	-.82	-.34	.87	1.15
	Stress	-.07	.03	-.15	-.241	.007	-.13	-.04	.89	1.13

a. Dependent Variable: Life Satisfaction

As shown in Table 9, when stigma-discrimination increases by one unit, the life satisfaction of FSW decreases by $\beta = .47$. However, when stigma-discrimination is combined with risky sexual behavior, the life satisfaction of FSW decreases by $\beta = -.70$, with $-.40$ and $-.30$ for stigma-discrimination and risky sexual behavior, respectively. Thirdly, one unit increase in stigma-discrimination, risky sexual behavior, and stress likely leads to a drop in life satisfaction with $\beta = -.71$, where stigma-discrimination shares $-.30$, risky sexual behavior shares $-.26$, and stress shares $-.15$.

Overall, stigma-discrimination explained 22% of the variability in FSW's life satisfaction ($R\text{-Square} = .22$, $F(1,264) = 74.43$, $Beta = -.47$, $p = .000$); stigma-discrimination and risky sexual behaviors by 31% ($R\text{-Square} = .31$, $F(2,262) = 56.68$, $Beta = -.70$; $p = .000$), and stigma-discrimination, risky sexual behavior, and stress combined to contribute 32% ($R\text{-Square} = .32$, $F(3,261) = 40.42$, $Beta = -.71$; $p = .000$).

In addition to the quantitative findings above data was generated from the qualitative FGDs. Theme-1 was psychosocial challenges where it includes five sub-themes. In accordance to the quantitative findings among the five sub-themes the impacts of the first three sub-themes from the Theme-1 psychosocial challenges were explored on Theme-2 Life goal. That means, the impacts psychosocial challenges Sub-theme 1: Stigma/discrimination, Sub-theme-2: Risky sexual behaviours and Sub-theme-3: Stress was explored on the life goal Sub-theme-1: Life satisfaction.

Primarily, data was gathered from FSW and presented on how they are stigmatized and discriminated, leading to dissatisfaction in their lives. With this in mind, one of the FGD participants from FSWs forwarded on the following ideas:

I am completely dissatisfied with my job because life is hard in and of itself and I don't feel fulfilled by it. We are obliged to struggle for a daily living without hope or vision because of the unhappiness and hazardous working circumstances. When we receive money today, we must spend it now! The "life tomorrow" does not exist for us (FGD1, FSW8).

From the FGD 1 FSW7 commented on how stigma and discrimination in the community influence her life and the lives of her coworkers.

My client once hit me without my fault, but I was viewed as a criminal by the community and the law enforcement bodies. Police officers beat me and dehumanized me after wrongfully arresting me. Additionally, the owner of the living room once kicked me out even though she knew I was FSW. In general, there is a lot of stigma and discrimination, and it is negatively impacting my life (FGD1, FSW7).

Moreover, another female sex worker supplemented the view of the previous female sex worker and she forwarded the following idea based on particular instance stigma and discrimination is expressed in a form of limiting social space and

restraining trustful and unconditional relations.

My life is not satisfying at all. Because of the unacceptability of our work in our community, we face negative attitudes from others around us. The community discriminates against and stigmatizes us even in various social situations and relationships. Consider the conventional method of gathering funds and allocating resources to members at random, referred to as "Equb." Check to see if any of us get the first voucher opportunity out of all the members. Nobody gives us the money because they think we are dishonest, mobile, and who move about a lot and make it hard to find our address (FGD1, FSW 3).

Focus Group Discussion with stakeholders was made to explore how far stigma/discrimination impact on the life satisfaction of FSW.

Given that sex work is frowned upon in Ethiopian culture and religion, the life fulfillment of FSW is in doubt. Therefore, there is no justification for the stigmatization and discrimination experienced by those who work in this field. Furthermore, they don't seem to fit in with the society in which they exist. For instance, nobody wants to share living spaces with them or go to various social gatherings with them (FGD2, SH4).

Moreover, the following evidence was provided by other Stakeholder participated in FGD2.

The majority of FSW are dissatisfied with their lives and careers. Their way of life is one of survival rather than planning for the future. Among the many things that drive those to be unhappy are stigma and discrimination. Some of them have even made repeated attempts at suicide (FGD2, SH5).

The other participant reported that:

The most unsafe job that makes women who engage in it panicked and unsatisfied is sex work. Furthermore, the FSW themselves do not regard themselves well, nor does the community surrounding them have a positive opinion toward them (FGD2, SH7).

As a whole, the qualitative data showed that the community around FSW stigmatizes and discriminates against FSW. The stigma/discrimination has been expressed in a form of social isolation from societal, culture, religion, and economic events. The likelihood is that they were denied the freedom to live where they liked and to rent living rooms. Hence, FSW are unhappy in their lives, in their careers, and in their existence.

Sub-theme-2 of psychosocial challenges was risky sexual behaviours. The impacts of risky sexual behaviours on the life satisfaction of FSW were explored. In relation to this the following findings are explored. Firstly, one of the FSW reflected the following idea:

Most of my clients desire to have sex without using condoms. I am worried that having sex without protection could expose me to STDs like HIV/AIDS. Some clients occasionally desire to use a condom, but they take it off as soon as they start having sex. This type of dangerous client behavior makes my life and my work unsatisfactory. In addition, a lot of clients desire to engage in sexual activities that are contrary of our culture, such oral and anal sex, even though we know that these can be harmful and lead to disease (FGD1, FSW3).

Female sex worker 4 expressed the risky nature of the sex work in terms of economic aspect; the chance of getting client/partner and the behaviour some clients. She said that:

Since my goal is to survive, it doesn't make sense for me to go without food for the night. So I am praying for a job. However, if the client is harsh, I can lose my life after gaining their business. Some clients lack humanity (FGD1, FSW4).

The other participant said that she has been working in a death and dying circumstances struggling with some clients with challenging behaviours. In the regards she forwarded the following ideas.

I was once taken to a client's residence by him. He gave me his wife's nightgown not long after we arrived. I put on the cloth as soon as I got out of the shower. A few minutes later, there was a large stone continuously hitting the house's outer gate. The person's siblings and wife were aware that I was at home. Then they arrived, broke down the door, went inside the house, and beat my client and me. We spent the night at the police station, and the next day, we were released. The situation was really different, and I truly intend to continue living after leaving this job! (FGD1, FSW1).

The riskiness of sex worker also discussed by participant 6 from FGD1 that she gave particular emphasis to the nature of clients' house and their behaviours. She forwarded the following ideas.

I was taken to a client's house in one day. He urged me to remove my cloth shortly after we arrived. However, when I examined the house, I couldn't be safe but be frustrated by the compound's silence, the rooms' darkness, and its overall emptiness. The client then shows me the way when I ask him I want to use the restroom outside. I then scaled the fence of the next house and dove below. I was hurt, but I made it through the night there. When the neighboring house's residents saw me in the morning, I explained the situation to them, and they sympathized and offered me their support (FGD1, FSW6).

The other participant expressed the risky nature of sex work in terms of the time, the behaviour of the clients, the condition how the FSW are engaging in it. He said that:

It is naturally challenging for women to work at night. Numerous clients' exhibit challenging behaviors and they have the chance to take advantage of the nighttime hours to abuse FSW. Furthermore, the FSW chew "khat" while staying at home throughout the day, and they refuel at night. Imagine where the women and clients both become inebriated. Thus, how can things get safe and how can one have fulfillment in life? (SH3, FGD2).

In conclusion, the main challenges are related to the working environment, such as timing and location. The work is done at night with many difficulties and tight supervision of hotel/bar managers. Conversely, some clients' behavior involves refusing to pay for the sex, while others harass them physically and psychologically and even take them to distant homes where the in-and-out gates are unknown. Other clients push them to engage in sexual activities such as oral, anal, and unprotected intercourse that go against their culture, religion, and conscience.

Sub-theme-3 of psychosocial challenges was stress. The impacts of Sub-them 3: Stress on the life satisfaction of FSW was explored. In relation to this, the findings are presented in the section below. For example, from the Focus Group Discussion 1 Female Sex Worker 5 said that stress as one of psychological factor that cause FSW to feel dissatisfied. Her response is depicted in the following.

With this job, everything is difficult and disappointing. This is a work for survival, not something I would like to do. Numerous reasons contribute to the stress, including stigma and discrimination, inadequate income, bad client behavior, and general working circumstances (FGD1, FSW5).

Another FSW expanded the view of FSW 5 by providing the following ideas:

I have a lot of psychological and social issues in my life as a result of the challenging conditions at work. I experience loneliness, despair, and stress. There are no members of my family or relatives around. I am incredibly empty and hopeless (FGD1, FSW4).

One of the stakeholders delivered his view on how FSW are experiencing stress and other psychological problems while they are engaging in this job. Besides, this stressful circumstance is affecting their current life.

In general, sex work is a challenging job, and FSW face complex personal situations. They struggle with a range of behavioral and mental health issues, including despair and stress. But instead of finding other solutions, they often turn to substance use and abuse, which leads to nighttime drinking. The most dangerous conditions for life are being brought on by it (FGD2, SH1).

To sum up, the FGD from the FSW and SH showed that FSW face more than just stress; they also experience depression and drug usage. According to what is known, the FSW's poor working circumstances, stigma and discrimination, low income, and lack of social support from friends, family, and the community at large are all contributing factors to their mental health problems. The ultimate goal, which is to find purpose in life and a reasonable level of life satisfaction, is therefore influenced by these psychosocial issues.

3.3.2 Impacts of psychosocial challenges on the coping strategies of FSW

This part viewed the coping mechanisms of FSW as a dependent variable, while psychological challenges such as substance abuse, anxiety, depression, risky sexual practices, and stigma-discrimination were viewed as independent factors. The impact of the independent variables on the dependent variables was then investigated using stepwise multiple regressions. The results are presented in the sections that follow.

Table 10 Model Summary

Model	R	R ²	Adjusted R ²	SE	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.425 ^a	.18	.18	2.91	.180	57.882	1	263	.000
2	.464 ^b	.22	.21	2.90	.035	11.648	1	262	.001
3	.486 ^c	.24	.23	2.82	.021	7.044	1	261	.008

- Predictors: (Constant), Risky Sexual Behaviors
- Predictors: (Constant), Risky Sexual Behaviors, Stigma-Discrimination
- Predictors: (Constant), Risky Sexual Behaviors, Stigma-Discrimination, Stress
- Dependent Variable: Coping Strategies

R-Square: As shown in the above, the model summary the value of R-Square for risky sexual behaviours towards coping strategies of FSW was .18 which indicates that 18% of the total variance in the coping strategies of FSW has been explained

by risky sexual behaviours. On the other hand, the combination of risky sexual behaviours and stigma-discrimination to have the R square of .22 where referring to 22% variability in the coping strategies was due to the influence of risky sexual behaviors and stigma-discrimination. In the third model three constant predictors such as risky sexual behaviors, stigma-discrimination, and stress contributed to .24(24%) of variability in the coping strategies of FSW.

Table 11 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	491.119	1	491.119	57.88	.000 ^b
	Residual	2231.507	263	8.485		
	Total	2722.626	264			
2	Regression	586.102	2	293.051	35.94	.000 ^c
	Residual	2136.525	262	8.155		
	Total	2722.626	264			
3	Regression	642.248	3	214.083	26.86	.000 ^d
	Residual	2080.378	261	7.971		
	Total	2722.626	264			

a. Dependent Variable: Coping Strategies

b. Predictors: (Constant), Risky Sexual Behaviors

c. Predictors: (Constant), Risky Sexual Behaviors, Stigma-Discrimination

d. Predictors: (Constant), Risky Sexual Behaviors, Stigma-Discrimination, Stress

According to Table 11 above, there was a substantial impact of risky sexual behaviors on the FSW coping strategies, with an overall significance ($F(1,264) = 57.88, p = .000$). Additionally, there is an interaction effect between risky sexual behaviors and stigma-discrimination with ($F(2,262) = 35.94, p = .000$). Thirdly there was a significant interaction effect was obtained, ($F(3,261) = 26.86, p = .000$) between risky sexual behavior, stigma-discrimination and stress.

Table 12 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	SE	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	25.24	1.14		22.23	.000	23.00	27.47		
	Risky Sexual Behaviors	-1.05	.14	-.43	-7.61	.000	-1.32	-.78	1.00	1.00
2	(Constant)	31.95	2.26		14.14	.000	27.50	36.40		
	Risky Sexual Behaviors	-.93	.14	-.38	-6.64	.000	-1.20	-.65	.94	1.10
	Stigma-Discrimination	-.44	.13	-.19	-3.4	.001	-.69	-.19	.94	1.10
3	(Constant)	33.66	2.33		14.48	.000	29.08	38.24		
	Risky Sexual Behaviors	-.83	.15	-.34	-5.77	.000	-1.11	-.55	.87	1.15
	Stigma-Discrimination	-.39	.13	-.17	-3.01	.003	-.64	-.13	.92	1.10

Stress	-.09	.04	-.15	-2.66	.008	-.16	-.02	.89	1.13
--------	------	-----	------	-------	------	------	------	-----	------

a. Dependent Variable: Coping Strategies

Table 12 demonstrates that for every unit increase in risky sexual behavior, the coping strategies of FSW decrease by $\beta = .43$. Moreover, when risky sexual behavior is combined with stigma-discrimination, the coping strategies of FSW decrease by $\beta = .57$, with corresponding decreases of $\beta = .38$ and $\beta = .19$ for risky sexual behavior and stigma-discrimination, respectively. Thirdly, a one unit increase in stress, stigma-discrimination, and risky sexual behavior combined is expected to cause a drop in coping strategies ($\beta = .66$, where stress=.15, risky sexual behavior =.34, and stigma-discrimination =.17).

Generally, risky sexual behaviours, stigma-discrimination and stress were found to be significant determinants. Therefore, in the first model risky sexual behaviours explained variability within the coping strategies of FSW by 18 % (R -Square= .18, $F = (1,264) = 57.88$ Beta =-.43, $P = .000$). In the second model, risky sexual behaviours and stigma-discrimination explained coping strategies of FSW by 22% (R-Square= .22, $F (2,262) = 35.94$, Beta = -.57; $p = .000$). In the third model, risky sexual behaviours, stigma-discrimination, and stress combined together and contributed 24% (R-Square= .24, $F (3,261) = 26.86$, Beta = -.66; $p = .000$).

Along with the quantitative findings, data from the qualitative focus group discussions was also generated. The impacts of Theme 1's- Psychosocial challenges (such as Sub-theme 1: Stigma/discrimination, Sub-theme-2: Risky sexual behaviours and Sub-theme-3: Stress) on Theme 3's: Response to psychological challenges (Sub-theme 1- Coping strategies) was explored. With this information in mind, participant data on risky sexual behaviors that impact FSWs' coping mechanisms has been obtained and presented. In light of this, a FGD participant from FSWs expressed the following experiences:

I felt uncomfortable as I observed the danger factors, which was in the rooms' darkness, living areas, and quiet. The client gave me the right direction when I asked to use the restroom outside. I fled from what were undoubtedly going to be consequences by scaling the fence and running inside the next house (FGD1, FSW6).

The other FSW expressed the following ideas

The majority of my clients want to have sex without putting condoms and take them off during the encounter. There could be danger in this. Despite the possibility of illnesses and physical harm, some clients still desire oral and anal intercourse. In an attempt to address these kinds of behaviors, I assess my clients' consciousness prior to and during sexual activity and advise them on the advantages of safe sexual behavior. In addition to these strategies, I don't force my clients to wait until the contact is over to have sex or use female condoms (FGD1, FSW3).

One of the stakeholders further explicates sex work as the most risky job and she elucidated the riskiness of the job and the coping strategies as the following:

The FSW wishes to get past the inappropriate sexual practices they engaged in with their clients. They use and abuse substances as the primary coping mechanism that they do not want to recall traumatic experiences. They consume beer and liquors in the evenings, chew "Khat," and smoke shish every day. They experience temporary psychological comfort and fake satisfaction (FGD2, SH5).

As a result, the participants' experiences verified that FSWs have been operating in risky situations. Based on the findings, they employ unhealthy coping mechanisms that exacerbate their already complex lives rather than helping them to grow and support. While some of them turn to drug usage and abuse, others run away and hide themselves somewhere, such as leaving their place of employment for a while.

From Theme 1 psychosocial challenges Sub-theme 1- stigma/discrimination is the second factor that influenced on the coping strategies of FSW. Evidences were drawn from the participants and presented on how FSW are stigmatised and discriminated which in turn leads them to apply coping strategies. Having this into mind, one of the FGD participants from FSWs reflected the following ideas:

As a coping mechanism, I rent living rooms far from my workplace to avoid stigma and discrimination (FGD1, FSW8).

The other participant shared her experiences, emphasizing measures she took when things have grown worse.

I leave Hawassa to Addis Ababa, where I hide out while my life becomes more difficult, my loneliness grows, and things get worse. However, I am aware that several colleagues were unable to do this and lost their own lives (FGD1, FSW5).

One of the stakeholders further explicates sex work as the most risky job and she elucidated the riskiness of the job and the coping strategies as the following:

The most common coping mechanism used by FSWs is substance misuse. Within it, they conceal themselves. They usually chew "Khat" and smoke shish throughout the day, while in the evening they drink alcoholic beverages. Some others mix the

two at the same time. They probably believe that no one is near them, and they view drug usage as their close buddy. Consider how challenging it would be to maintain composure and protect other people's lives when experiencing this (FGD2, SH5).

It was thus clear from the qualitative findings that the community surrounding FSW is stigmatizing and discriminating against them. Social exclusion from events related to society, culture, religion, and economy was used to describe this. The likelihood is that they were denied the freedom to live where they pleased and to rent living rooms. In response, the FSW employ various coping mechanisms, such as running away, attempting suicide or suicide, abusing drugs, concealing their true identities and occupations.

From Theme 1 psychosocial challenges Sub-theme-3 stress was the third factor that influenced on the coping strategies of FSW. One of the participants exposed her view as

I joined this job because a relative of mine sexually assaulted me. I therefore became involved in the business in reaction to the early-life rape I suffered (FGD1, FSW2).

The other FSW reflected her view as follow:

My line of work is challenging. In what way may I anticipate success in my life? I am constantly hesitant and frustrated by tough circumstances. I have no hope! Why is it that I need to acquire new, constructive coping mechanisms after I damped myself? My life and my destiny lie there (FGD1, FSW 6).

One of the participants of FSW mentioned a mixed view that portrays positive expression that they use social support occasionally. She mentioned the following idea which seems to be promising and shared to other sex workers.

Working in sex is not an easy job. We encounter many social and psychological obstacles, but no one or any organization offers us socio-emotional support. Even if this is not enough, we occasionally help one another out, exchange ideas, and work to protect our rights. This does not imply that it is systematic and well-organized. Both individuals and organizations must help us (FGD1, FSW7).

One of the stakeholders shared his thoughts on the stress and other psychological issues that FSW face in the course of their work. In addition, their present life is being impacted by this stressful situation.

They deal with a range of behavioral and mental health issues, including depression and stress. To ignore what is happening to their lives, they often use and abuse drugs to cope with these issues (FGD2, SH1).

The FGD from the FSW and SH showed that FSW experience more than just stress; they also experience various mental health conditions like depression and abuse of drugs, as well as feelings of retaliation. As a result, these psychological issues also have an impact on how well they respond when using effective techniques for coping. In the worst case scenario, the other FSW exacts revenge, which carries a significant risk of HIV/AIDS and other STDs spreading.

In summary, the study employed concurrent mixed design that allowed for mixing throughout the instrument construction, data collection, data analysis, and interpretation phases. The quantitative results demonstrated significant influence of three psychosocial factors on FSWs' life satisfaction and coping mechanisms. However, the information obtained via FGD strongly supported the findings of the quantitative results.

4. DISCUSSION

The impact of psychosocial challenges on FSWs' life satisfaction and coping strategies were investigated. Five predictive variables: risky sexual behaviors, substance abuse, stress, depression, and stigma and discrimination and two outcome variables: life satisfaction and coping strategies were identified.

Stigma-discrimination, risky sexual behavior, and stress were found to have a substantial impact on the life satisfaction of FSW out of the five psychosocial challenges. It was found that the primary psychosocial factor negatively affecting FSWs' life satisfaction was stigma-discrimination. This indicates that there is a considerable decline in the life satisfaction of FSW when stigma-discrimination on the FSW rises. Accordingly, studies from the United States of America (Baker et al., 2004; Monk-Turner, 2013); Australia (Rayson & Alba, 2019); Nicaragua (Cox, 2012); India (Adhikari, 2016; Marboh & Ali, 2021); and Hong Kong (Ma & Lo, 2019) substantiate the present findings. Additionally, this was in line with research conducted in Ethiopia (Getnet & Damen, 2012; Mazeingia & Negesse, 2020), Chad (Mutola et al., 2022), and South Africa (Chen et al., 2022). In light of this, the findings have significant implications for community discourse, mental and psychological interventions, and human rights issues in order to promote social fairness.

Risky sexual behaviors on FSW's life satisfaction were found to have additional effects. That is to say, the life satisfaction of FSWs becomes increasingly endangered when they experience stigma-discrimination in addition to risky sexual behavior. Past empirical evidences from India (Kandeger et al., 2018), Singapore (Wong & Chan, 1999), and Spain (Martín-Romo et al., 2023b) support the results of the current research. Furthermore, certain African research, such as those from Ethiopia (Mehret et al., 2017) and South Africa (Chen et al., 2022), supports the results that are published now. Under these circumstances, the results suggest that, even if sex work is a vocation that people choose to pursue or are forced to, sexual

desire should be respected because failing to do so threaten the health and welfare of FSW. The additional impact of stress on FSWs' life satisfaction was also validated by this study. FSWs' life dissatisfaction is compounded by three factors: stress, risky sexual behavior, and stigma/discrimination. Previous researches highlight the role of psychological issues like stress in contributing to FSW dissatisfaction, which is consistent with the current study's findings. The results of this investigation are in line with studies conducted in Mexico (Millan-Alanis et al., 2021), Bangladesh (Haque, 2020), Spain (Martín-Romo et al., 2023b; Lakshmana&Dhanasekara, 2012), and India (Lakshmana&Dhanasekara, 2012). Consistency was found also from other African countries, including Ethiopia (Wondie et al., 2019; Yesuf et al., 2023) and South Africa (Coetzee et al., 2018; Jewkes et al., 2021). In light of this, it is important to emphasize the necessity of mental health and psychosocial care for FSW. Three of the five predictor factors that were revealed to be important determinants of coping strategies were risky sexual behavior, stigma-discrimination, and stress. The results imply that a decrease in the likelihood to use coping mechanisms occurs with an increase in risky sexual behavior. According to a study conducted in India, FSWs need to develop positive resilience skills. Another consistent conclusion from the USA is that there is a higher prevalence of risky sexual behaviors but a lower use of adaptive coping mechanisms (Hulland et al., 2015; Yuen et al., 2014b) and Tajikistan (Kluczevska, 2023). The findings of this study were further supported studies from African contexts such as South African (Floyd et al., 2010) and Ethiopian studies (Addisalem, 2020; Mazeingia&Negesse, 2020) highlighted on drug use and misuse, client transfer/substitution (Robinson & Yeh, 2012) in Kenya and isolation and broken interpersonal relationships with families and relatives in Malawi (Ruegsegger et al., 2021). The implications of the findings again focus on the mental health and psychosocial intervention to reduce stigma-discrimination and enhance self-worth among FSW. Furthermore, the study's findings reveal that when risky sexual conduct is paired with stigma-discrimination, the usage of positive strategies for coping decreases. This finding supported the findings of prior studies in the United States (Yuen et al., 2014b), Hong Kong (Ma & Loke, 2019), and Bangladesh (Stilinski&Oluwaseyi, 2024). Furthermore, research in Kenya has demonstrated consistent outcomes from an African context (Robinson & Yeh, 2012; Stockton et al., 2020). In addition to, studies from Ethiopia complement the current findings that FSW use negative coping methods (Addisalem, 2020; Mazeingia and Negesse, 2020). As a result, the findings highlight the importance of mental health and psychosocial intervention in reducing stigma and increasing self-worth among FSW. The current study discovered that the combination of risky sexual practices, stigma-discrimination, and stress had substantial effects on FSW coping mechanisms. It is easy to distinguish whether FSW engage in dangerous sexual activities and face stigma-discrimination, the possibility of experiencing stress is unavoidable. When three events occur simultaneously, it complicates life even more. Previous research has yielded varied results on this problem. There are consistent findings were obtained from China (Tam et al., 2022; Zhang et al., 2015); Indonesia (Ismail et al., 2018). However, slightly contrary study findings were highlighted on FSWs utilization of a mix of positive or negative coping mechanisms depending on their personality and circumstances such as Hong Kong (Yuen et al., 2014b) and Spain (Puente-Martínez et al., 2019). The implications of the findings again focus on the mental health and psychosocial intervention to reduce stigma-discrimination and enhance self-worth among FSW.

5. CONCLUSION

According to the study's findings, stigma-discrimination from the community, risky sexual practices, and stress threatened FSWs' life satisfaction. As a result, focusing on community intervention to reduce stigma-discrimination is worthwhile. Similarly, FSWs must advise differentiating dangerous sexual activities from safe sexual behaviors in order to prevent short- and long-term biological, psychological, and social consequences. The study also found that FSW engage in risky sexual practices, are stigmatized and discriminated against, and endure stress in their lives. Despite the fact that individuals were experiencing these issues, the likelihood of using coping mechanisms was low. In this sense, it is critical to inculcate positive coping strategies for FSW, which gives them hope of leaving the job and engaging in less stressful, and risky. Thus, the negative impacts of stigma/discrimination, risky sexual behaviors, and stress on the life satisfaction and coping strategies of FSW were investigated. Despite the findings' importance in devising interventions to protect FSW and ensure their overall well-being and dignity, future studies should explore a larger sample size from various geographic regions.

Declaration

We confirm that this work is original; and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

Acknowledgement

We are grateful to all of the participants who took part in the study. We also extend our thanks to the research assistants.

Data Availability Statement

The data includes personal information and student academic success results, neither of which should be shared with third parties because it is against research ethics to do so without using anonymity to protect participant confidentiality and privacy. As a result, the data for this study are not publicly accessible, but they can be made available only with a particular directive from the research ethics council of Parul University.

Disclosure Statement

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding

There was no funding for this study.

REFERENCES

- [1] Addisalem, A. A. (2020). Risks and Resilience among Sexually Abused Female Street Children in Addis Ababa , Ethiopia : An Interpretative Phenomenological Analysis of their Lived Experiences.
- [2] Adhikari, H. (2016). Social Stigma- A Hindrance of Social Health and Social Rehabilitation of Female Sex Workers. *European Journal of Sociology and Anthropology*, 1(2), 1–8. <https://doi.org/10.20897/ejsa.201603>
- [3] Aldwin, C. M., & Yancura, L. A. (2004). Coping. *Encyclopedia of Applied Psychology*, Three-Volume Set, 1, 507–510. <https://doi.org/10.1016/B0-12-657410-3/00126-4>
- [4] American College of Obstetricians and Gynecologists(ACOG). (2018). Acog c ommittee opinion. Wolters Kluwer Health, 130(3), 150–152.
- [5] American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.).
- [6] Amogne, M. D., Balcha, T. T., & Agardh, A. (2019). Prevalence and correlates of physical violence and rape among female sex workers in Ethiopia: A cross-sectional study with respondent-driven sampling from 11 major towns. *BMJ Open*, 9(7). <https://doi.org/10.1136/bmjopen-2018-028247>
- [7] Baker, L. M., Wilson, F. L., & Winebarger, A. L. (2004). An exploratory study of the health problems, stigmatization, life satisfaction, and literacy skills of urban, street-level sex workers. *Women and Health*, 39(2), 83–96. https://doi.org/10.1300/J013v39n02_06
- [8] Beattie, T. S., Smilenova, B., Krishnaratne, S., & Mazzuca, A. (2020). Mental health problems among female sex workers in low- And middle-income countries: A systematic review and meta-analysis. In *PLoS Medicine* (Vol. 17, Issue 9). <https://doi.org/10.1371/journal.pmed.1003297>
- [9] Beehr, T. A., & Newman, J. E. (1978). Job Stress, Employee Health and Organizational Effectiveness: A Facet Analysis, Model and Literature Review. *Personnel Psychology*, 31(November), 66–669. <https://doi.org/http://dx.doi.org/10.1111/j.1744-6570.1978.tb02118.x>
- [10] Belay, D. G., & Alemu, G. (2018). Socio-economic and Psychological risks of unemployed youth in developing countries:Evidence from Hawassa City, Ethiopia. *International Journal of Risk and Contingency Management*, 7(2), 67–82. <http://search.ebscohost.com/login.aspx?direct=true&db=sph&AN=119374333&site=ehost-live&scope=site%0Ahttps://doi.org/10.1016/j.neuron.2018.07.032%0Ahttp://dx.doi.org/10.1016/j.tics.2017.03.010%0Ahttps://doi.org/10.1016/j.neuron.2018.08.006>
- [11] Bellhouse, C., Crebbin, S., Fairley, C. K., & Bilardi, J. E. (2015). The impact of sex work on women’s personal romantic relationships and the mental separation of their work and personal lives: A mixed-methods study. *PLoS ONE*, 10(10), 1–20. <https://doi.org/10.1371/journal.pone.0141575>
- [12] Carr, D., & Pudrovska, T. (2007). Conceptual Issues: Defining Crises. 1991, 175–185. <https://doi.org/10.1016/B0-12-370870-2/00126-8>
- [13] Chen, C., Baral, S., Comins, C. A., Mcingana, M., Wang, L., Phetlu, D. R., Mulumba, N., Guddera, V., Young, K., Mishra, S., Hausler, H., & Schwartz, S. R. (2022). HIV- and sex work-related stigmas and quality of life of female sex workers living with HIV in South Africa: a cross-sectional study. *BMC Infectious Diseases*, 22(1), 1–11. <https://doi.org/10.1186/s12879-022-07892-4>
- [14] Coetzee, J., Buckley, J., Otjombe, K., Milovanovic, M., Gray, G. E., & Jewkes, R. (2018). Depression and post traumatic stress amongst female sex workers in soweeto, South Africa: A cross sectional, respondent driven sample. *PLoS ONE*, 13(7), 1–16. <https://doi.org/10.1371/journal.pone.0196759>
- [15] Cox, K. (2012). Happiness and Unhappiness in the Developing World: Life Satisfaction Among Sex Workers, Dump-Dwellers, Urban Poor, and Rural Peasants in Nicaragua. *Journal of Happiness Studies*, 13(1), 103–128. <https://doi.org/10.1007/s10902-011-9253-y>
- [16] Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- [17] Diener, E., Oishi, S., & Lucas, R. E. (2012). Subjective Well-Being: The Science of Happiness and Life Satisfaction. *The Oxford Handbook of Positive Psychology*, (2 Ed.), February 2019, 1–16. <https://doi.org/10.1093/oxfordhb/9780195187243.013.0017>
- [18] Disability Rights California. (2016). Definitions of Stigma and Discrimination. California Mental Health

- Services Authority, 4–6. <http://www.disabilityrightsca.org/pubs/CM0401.pdf>
- [19] Endler, N. S., & Parker, J. D. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58(5), 844–854. <https://doi.org/10.1037//0022-3514.58.5.844>
- [20] Fanda, R. B. (2019). Policy Brief Policy Brief. *Pancanaka*, 1(01), 14. https://kebijakankesehatanindonesia.net/images/2019/policy_brief_wujudkan_keadilan_sosial_dalam_jkn.pdf
- [21] Floyd, L. J., Hedden, S., Lawson, A., Salama, C., Moleko, A. G., & Latimer, W. (2010). The Association Between Poly-Substance Use, Coping, and Sex Trade Among Black South African Substance Users. *Substance Use Misuse*, 45(12), 1971–1987. <https://doi.org/10.3109/10826081003767635>
- [22] Frantz, A., & Holmgren, K. (2019). The Work Stress Questionnaire (WSQ) - Reliability and face validity among male workers. *BMC Public Health*, 19(1), 1–8. <https://doi.org/10.1186/s12889-019-7940-5>
- [23] Fugl-Meyer, A. R., Bränholm, I. B., & Fugl-Meyer, K. S. (1991). Happiness and domain-specific life satisfaction in adult northern Swedes. *Clinical Rehabilitation*, 5(1), 25–33. <https://doi.org/10.1177/026921559100500105>
- [24] Getnet, M. K., & Damen, H. M. (2012). Level of stigma among female sex workers: Comparison of two surveys of HIV behavioral data, Ethiopia. *African Health Sciences*, 11(4), 543–549.
- [25] Goffman, E. (1963). *Stigma. Notes on the Management of Spoiled Identity*. Penguin Books.
- [26] Green, S. B., & Ross, M. E. (1996). Teachers : The Problems in Teaching Scale. *Teacher and Teaching Education*, 12(3), 1–11.
- [27] Haque, D. T. A. (2020). Working Pattern and Mental Stress of Female Sex Worker. *Journal of Medical Science And Clinical Research*, 08(05), 135–140. <https://doi.org/10.18535/jmscr/v8i5.25>
- [28] Hulland, E. N., Brown, J. L., Swartzendruber, A. L., Sales, J. M., Rose, E. S., & Diclemante, R. J. (2015). The association between stress, coping, and sexual risk behaviors over 24 months among African-American female adolescents. *Psychology, Health and Medicine*, 20(4), 443–456. <https://doi.org/10.1080/13548506.2014.951369>
- [29] International Initiative for Impact Evaluation. (2016). HIVST Among FSW; Uganda and Zambia 3ie studies – baseline questionnaire Participant Study Forms Version 1.0 (22 May 2016) (Vol. 0, Issue May).
- [30] Isamail, M. M., Abou, E. A., & Ali, I. A. (2018). Stress Management Training On Former Commercial Sex Workers At PSKW Mulya Jaya. *International Journal of Research Publications*, 5(2), 14.
- [31] Jewkes, R., Otjombe, K., Dunkle, K., Milovanovic, M., Hlongwane, K., Jaffer, M., Matuludi, M., Mbowane, V., Hopkins, K. L., Hill, N., Gray, G., & Coetzee, J. (2021). Sexual IPV and non-partner rape of female sex workers: Findings of a cross-sectional community-centric national study in South Africa. *SSM - Mental Health*, 1. <https://doi.org/10.1016/j.ssmmh.2021.100012>
- [32] Joba, N. M. (2022). Protection of Women Workers from Sexual Violence in Ethiopian Industrial Parks: A Case Study in Hawassa Industrial Park (Issue June). Addis Ababa University.
- [33] Kandeger, A., Guler, H. A., Egilmez, U., & Guler, O. (2018). Major depressive disorder comorbid severe hydrocephalus caused by Arnold – Chiari malformation Does exposure to a seclusion and restraint event during clerkship influence medical student ’ s attitudes toward psychiatry ? *Indian Journal of Psychiatry*, 59(4), 2017–2018. <https://doi.org/10.4103/psychiatry.IndianJPsychiatry>
- [34] Kassa, A. F. (2012). Unemployment in urban Ethiopia: determinants and impact on household welfare. *Unemployment in Urban Ethiopia*, 21(2), 127–157.
- [35] Kassa, Z. Y., Hadra, N., & Hailu, D. (2023). The hidden gender-based violence and associated factors among marginalised women in Southern Ethiopia. *Journal of Migration and Health*, 7(December 2021), 100154. <https://doi.org/10.1016/j.jmh.2023.100154>
- [36] Kaur, A. (2022). A General Overview of Theoretical Approaches on Sex Work : Heating Debates among Various Strands. 2(4), 347–351.
- [37] Kellie, D. J., Blake, K. R., & Brooks, R. C. (2021). Prejudice towards sex workers depends on the sexual activity and autonomy of their work, hobbies and daily activities. *Collabra: Psychology*, 7(1), 1–18. <https://doi.org/10.1525/collabra.24386>
- [38] Kluczevska, K. (2023). Securitization and Coping Strategies of Women Sex Workers in Tajikistan. *Problems of Post-Communism*, 70(3), 329–340. <https://doi.org/10.1080/10758216.2022.2062002>
- [39] Laisuklang, M. ., & Ali, A. (2017). Psychiatric morbidity among female commercial sex workers. *Indian Journal of Psychiatry*, 59(4), 465–470. https://doi.org/doi: 10.4103/psychiatry.IndianJPsychiatry_147_16

- [40] Lakshmana, G., & Dhanasekara, P. (2012). Well Being of Female Sex Workers. *The Hong Kong Journal of Social Work*, 46(01n02), 31–42. <https://doi.org/10.1142/s0219246212000058>
- [41] López-Gómez, I., Chaves, C., & Vázquez, C. (2023). Life satisfaction. *Dictionary of Ecological Economics: Terms for the New Millennium*, December 2020, 325–326. <https://doi.org/10.4337/9781788974912.L.25>
- [42] Ma, H., & Loke, A. Y. (2019). A qualitative study into female sex workers' experience of stigma in the health care setting in Hong Kong. *International Journal for Equity in Health*, 18(1). <https://doi.org/10.1186/s12939-019-1084-1>
- [43] Marboh, I. G., & Ali, A. (2021). Psychological distress and life satisfaction among female commercial sex workers. 8(4), 406–411.
- [44] Martín-Romo, L., Sanmartín, F. J., & Velasco, J. (2023a). Invisible and stigmatized: A systematic review of mental health and risk factors among sex workers. *Acta Psychiatrica Scandinavica*, 148(3), 255–264. <https://doi.org/10.1111/acps.13559>
- [45] Martín-Romo, L., Sanmartín, F. J., & Velasco, J. (2023b). Invisible and stigmatized: A systematic review of mental health and risk factors among sex workers. *Acta Psychiatrica Scandinavica*, February, 255–264. <https://doi.org/10.1111/acps.13559>
- [46] Mazeingia, Y. T., & Negesse, A. (2020). Intention, barriers and opportunities to exit from commercial sex work among female sex workers in Ethiopia: Qualitative study. *International Journal of Occupational Safety and Health*, 10(1), 64–72. <https://doi.org/10.3126/ijosh.v10i1.29885>
- [47] Mehret, M., Khodak.vich, L., Shanko, B., & Belete, F. (2017). Sexual Behaviours and Some Social Features of Female Sex Workers in the City of Addis Ababa. *Ethiopian Journal of Health Development*, 4(2), 1–6.
- [48] Methasaari, S., Krisnatuati, D., & Sciences, C. (2018). Coping Strategy , Religiosity , and Chronic Elderly. 03(02), 42–54.
- [49] Millan-Alanis, J. M., Carranza-Navarro, F., & de León-Gutiérrez, H. (2021). Prevalence of suicidality, depression, post-traumatic stress disorder, and anxiety among female sex workers: a systematic review and meta-analysis. *Archives of Women's Mental Health Volume*, 24, 867–879. <https://doi.org/https://doi.org/10.1007/s00737-021-01144-1>
- [50] Monk-Turner, E. (2013). Quality of life among thai sex workers: How important are work, educational and personal characteristics in shaping subjective well-being? *Journal of International Women's Studies*, 14(3), 1–13.
- [51] Morhason-Bello, I. O., Kabakama, S., Baisley, K., Francis, S. C., & Watson-Jones, D. (2019). Reported oral and anal sex among adolescents and adults reporting heterosexual sex in sub-Saharan Africa: A systematic review. *Reproductive Health*, 16(1). <https://doi.org/10.1186/s12978-019-0722-9>
- [52] Mutola, S., Pemunta, N. V., Ngo, N. V., Otang, O. I., & Tabenyang, tabi C. J. (2022). The Plight of Female Cameroonian Migrant Sex Workers in N'Djamena, Chad: A Case of Intersectionality. *Journal of Immigrant and Minority Health*, 24(2), 430–436. <https://doi.org/10.1007/s10903-021-01216-5>
- [53] Nathan, M. A., & Fratkin, E. (2018). The lives of street women and children in Hawassa, Ethiopia. *African Studies Review*, 61(1), 158–184. <https://doi.org/10.1017/asr.2017.135>
- [54] Okafor, U. O., Crutzen, R., Ifeanyi, O., Adebajo, S., & Van Den Borne, H. (2017). HIV prevalence and high-risk behaviour of young brothel and non-brothel based female sex workers in Nigeria. *BMC Research Notes*, 10(1), 1–6. <https://doi.org/10.1186/s13104-017-2712-8>
- [55] Owen, B. N., M-Giroux, M., Matse, S., Mnisi, Z., Baral, S., Ketende, S. C., Baggaley, R. F., & Boily, M. C. (2020). Prevalence and correlates of anal intercourse among female sex workers in eSwatini. *PLoS ONE*, 15(2), 32045444. <https://doi.org/10.1371/journal.pone.0228849>
- [56] Panneh, M., Gafos, M., Nyariki, E., Liku, J., Shah, P., Wanjiru, R., Wanjiru, M., Beksinska, A., Pollock, J., Gwala, D., Oside, D., Kamene, R., Watata, A., Atieno, A., Njau, F., Njeri, E., Orobi, E., Lwingi, I., Jama, Z., ... Beattie, T. (2022). Mental health challenges and perceived risks among female sex Workers in Nairobi, Kenya. *BMC Public Health*, 22(1), 1–14. <https://doi.org/10.1186/s12889-022-14527-5>
- [57] Parvez, F., Katyal, M., Alper, H., Leibowitz, R., & Venters, H. (2013). Female sex workers incarcerated in New York City jails: Prevalence of sexually transmitted infections and associated risk behaviors. *Sexually Transmitted Infections*, 89(4), 280–284. <https://doi.org/10.1136/sextrans-2012-050977>
- [58] Priddy, F. H., Wakasiaka, S., Hoang, T. D., Smith, D. J., Farah, B., Del Rio, C., & Ndinya-Achola, J. (2011). Anal sex, vaginal practices, and HIV incidence in female sex workers in Urban Kenya: Implications for the development of intravaginal HIV prevention methods. *AIDS Research and Human Retroviruses*, 27(10), 1067–

1072. <https://doi.org/10.1089/aid.2010.0362>

- [59] Puente-Martínez, A., Ubillos-Landa, S., García-Zabala, M., & Páez-Rovira, D. (2019). "Mouth Wide Shut": Strategies of Female Sex Workers for Coping With Intimate Partner Violence. *Journal of Interpersonal Violence*, 34(16), 3414–3437. <https://doi.org/10.1177/0886260516670180>
- [60] Ramanathan, S., Nagarajan, K., Ramakrishnan, L., Mainkar, M. K., Goswami, P., Yadav, D., Sen, S., George, B., Rachakulla, H., Subramanian, T., & Paranjape, R. S. (2014). Inconsistent condom use by male clients during anal intercourse with occasional and regular female sex workers (FSWs): Survey findings from southern states of India. *BMJ Open*, 4(11), 1–8. <https://doi.org/10.1136/bmjopen-2014-005166>
- [61] Rayson, J., & Alba, B. (2019). Experiences of stigma and discrimination as predictors of mental health help-seeking among sex workers. *Sexual and Relationship Therapy*, 34(3), 277–289. <https://doi.org/10.1080/14681994.2019.1628488>
- [62] Regassa, B., & Regassa, N. (2015). Housing and poverty in Southern Ethiopia: Examining affordability of condominium houses in Hawassa city. *Economics and Sociology*, 8(3), 155–169. <https://doi.org/10.14254/2071-789X.2015/8-3/12>
- [63] Robinson, J., & Yeh, E. (2012). Risk-coping through sexual networks: Evidence from client transfers in Kenya. *Journal of Human Resources*, 47(1), 107–145. <https://doi.org/10.3368/jhr.47.1.107>
- [64] Rondón Bernard, J. E. (2018). Depression: A Review of its Definition. *MOJ Addiction Medicine & Therapy*, 5(1), 5–7. <https://doi.org/10.15406/mojamt.2018.05.00082>
- [65] Ross, I., Scott, R., Blackett, I., & Hawkins, P. (2016). Tools and guidelines: fecal sludge management: diagnostics for service delivery in urban areas. April, 66. <http://documents.worldbank.org/curated/en/461321468338637425/Fecal-sludge-management-diagnostics-for-service-delivery-in-urban-areas-tools-and-guidelines>
- [66] Ruegsegger, L. M., Stockton, M., Go, V. F., Piscalko, H., Davis, D., Hoffman, I. F., Hosseinipour, M. C., Zalira, E., Lungu, T., Bula, A., & Lancaster, K. E. (2021). Stigma, social support, and sexual behavior among female sex workers at risk for HIV in Malawi. *AIDS Education and Prevention*, 33(4), 290–302. <https://doi.org/10.1521/aeap.2021.33.4.290>
- [67] Ryff, C. D. (1989). Happiness Is Everything, or Is It? Explorations on the Meaning of Psychological Well-Being. *A Journal of Personality and Social Psychology*, 57(6), 1069–1081.
- [68] Ryff, C. D., & Singer, B. H. (2006). Best news yet on the six-factor model of well-being. *Social Science Research*, 35(4), 1103–1119. <https://doi.org/10.1016/j.ssresearch.2006.01.002>
- [69] Salazar, L. F., Head, S., Crosby, R. A., DiClemente, R. J., Sales, J. M., Gina M. Wingood, S. D., & Rose, E. (2011). Original Articles. *JOURNAL OF WOMEN'S HEALTH*, 20(2), 557–560. <https://doi.org/10.1080/1036114032000134056>
- [70] Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach*. In *Leadership & Organization Development Journal* (7th ed.). John Wiley & Sons Ltd. <https://doi.org/10.1108/lodj-06-2013-0079>
- [71] Senn, C. Y. (2021). Women ' s Experiences of Self-Objectification and Sexualization and Their Impact on Attitudes Towards Online Sex Work Women ' s Experiences of Self -Objectification and Sexualization and Their Impact on Attitudes Towards Online Sex Work By A Thesis Submit (Issue September). <https://doi.org/10.13140/RG.2.2.23482.88001>
- [72] Senn, T. (2013). Sexual Risk Behavior. In J. . Gellman, M.D., Turner (Ed.), *Encyclopedia of Behavioral Medicine* (Vol. 369, Issue 1, pp. 1689–1699). Springer. https://doi.org/https://doi.org/10.1007/978-1-4419-1005-9_670
- [73] Shahsavarani, A. M., Azad, E., Abadi, M., & Kalkhoran, M. H. (2015). Stress : Facts and Theories through Literature Review. 2(2).
- [74] Smith, M. M., Saklofske, D. H., Keefer, K. V., & Tremblay, P. F. (2016). Coping strategies and psychological outcomes: The moderating effects of personal resiliency. *Journal of Psychology: Interdisciplinary and Applied*, 150(3), 318–332. <https://doi.org/10.1080/00223980.2015.1036828>
- [75] Sousa, L., & Lyubomirsky, S. (2001). Life Satisfaction In J. Worell (Ed.), *Encyclopedia of women and gender: Sex similarities and differences and the impact of society on gender*. San Diego, CA: Academic Press, Vol. 2, 667–676.
- [76] Stephenson, E., & DeLongis, A. (2020). Much of current theory and research on coping stems from a transactional model. 2.

- [77] Stilinski, D., & Oluwaseyi, J. (2024). Unveiling the Impact of Stigma and Discrimination on the Health of Female Sex Workers in Bangladesh : A Psychological and Social Perspective. April 2023.
- [78] Stockton, M. A., Pence, B. W., Mbote, D., Oga, E. A., Kraemer, J., Kimani, J., Njuguna, S., Maselko, J., & Nyblade, L. (2020). Associations among experienced and internalized stigma, social support, and depression among male and female sex workers in Kenya. *International Journal of Public Health*, 65(6), 791–799. <https://doi.org/10.1007/s00038-020-01370-x>
- [79] Susan, S. L., Sam, R. M., & Asir, D. (2014). A Study On Life Satisfaction Among Female Sex Workers. 2001, 22–24.
- [80] Taber, K. S. (2018). The Use of Cronbach’s Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- [81] Tadele, A., Hussien, S., & Shimelis, T. (2019). Prevalence and associated factors of Chlamydia trachomatis and Neisseria gonorrhoeae among female commercial sex workers in Hawassa City, Southern Ethiopia. *BMC Infectious Diseases*, 19(1), 1–8. <https://doi.org/10.1186/s12879-019-3698-8>
- [82] Tadesse, T., Kebede, a Z., & Tamirayehu, T. (2016). Assessment of substance abuse and risky sexual behaviour among female sex workers in Addis-ketema sub city, Addis-Ababa, Ethiopia. *Journal of Public Health and Epidemiology*, 8(9), 158–168. <https://doi.org/10.5897/JPHE2015.0773>
- [83] Tam, C. C., Zhou, Y., Qiao, S., Li, X., & Shen, Z. (2022). Mindfulness, psychological distress, and somatic symptoms among women engaged in sex work in China. *Applied Psychology: Health and Well-Being*, 14(3), 967–986. <https://doi.org/10.1111/aphw.12362>
- [84] Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach’s alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- [85] van Veen, M.G., Götz, H.M., van Leeuwen, P. A. et al. (2010). HIV and Sexual Risk Behavior among Commercial Sex Workers in the Netherlands. *Arch Sex Behav*, 39(14), 714–723. <https://doi.org/https://doi.org/10.1007/s10508-008-9396-z>
- [86] Vennila, S., & Sethuramalingam, V. (2020). Resilience and Life Satisfaction among Single Women Commercial Sex Workers in Chennai City. 21(2), 123–130.
- [87] Wariso, F. B., Ayalew, J., Barba, A., Bedassa, B. B., Ebo, G. G., Tura, J. B., Rameto, M., Belihu, W. B., Asfaw, D., Amogne, M. D., Negeri, L., Lulseged, S., & Abraham, S. A. (2023). Determinants of sexually transmitted infections among female sex workers in Ethiopia: a count regression model approach. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1190085>
- [88] Wondie, Y., Yigzaw, T., & Koester, L. (2019). Post-traumatic stress disorder, depression and substance abuse among female street-based sex workers in Addis Ababa. *Ethiopian Renaissance Journal of Social Sciences and the Humanities*, 6(1), 14–32.
- [89] Wong, M. L., & Chan, R. K. W. (1999). A prospective study of pharyngeal gonorrhoea and inconsistent condom use for oral sex among female brothel-based sex workers in Singapore. *International Journal of STD and AIDS*, 10(9), 595–599. <https://doi.org/10.1258/0956462991914726>
- [90] Worke, M. D., Koricha, Z. B., & Debelew, G. T. (2020). Prevalence of sexual violence in Ethiopian workplaces: systematic review and meta-analysis. *Reproductive Health*, 17(1), 1–15. <https://doi.org/10.1186/s12978-020-01050-2>
- [91] Wu, Y., Yu, W., Wu, X., Wan, H., Wang, Y., Lu, G., & Chen, C. (2020). The Role of Resilience and Coping Styles in Subjective Well-Being Among Chinese University Students. *Asia-Pacific Education Researcher*, 25(1), 1–11. <https://doi.org/10.1186/s40359-020-00444-y>
- [92] Yesuf, Y. M., Mekonnen, D., Teklu, H., & Kebede, S. A. (2023). Prevalence and correlates of anxiety and depression among female sex workers in Dire Dawa city Administration , Eastern Ethiopia Yassin Mohammed Yesuf (PhD) 1 * , Dawit Mekonnen (PhD) 2 , Hareg Teklu 3 , Sebsibew Atikaw Kebede (PhD) 4. 1–36. <https://doi.org/https://doi.org/10.1101/2023.02.03.23285415>
- [93] Yuen, W. W. Y., Wong, W. C. W., Holroyd, E., & Tang, C. S. K. (2014a). Resilience in work-related stress among female sex workers in Hong Kong. *Qualitative Health Research*, 24(9), 1232–1241. <https://doi.org/10.1177/1049732314544968>
- [94] Yuen, W. W. Y., Wong, W. C. W., Holroyd, E., & Tang, C. S. K. (2014b). Resilience in work-related stress among female sex workers in Hong Kong. *Qualitative Health Research*, 24(9), 1232–1241. <https://doi.org/10.1177/1049732314544968>

- [95] Zehnder, M., Mutschler, J., Rössler, W., Rufer, M., & Rüsch, N. (2019). Stigma as a barrier to mental health service use among female sex workers in Switzerland. *Frontiers in Psychiatry*, 10(FEB), 7–9. <https://doi.org/10.3389/fpsyt.2019.00032>
 - [96] Zhang, C., Hong, Y., Li, X., Qiao, S., Zhou, Y., & Su, S. (2015). Psychological Stressors in the Context of Commercial Sex Among Female Sex Workers in China. *Health Care Women International*, 36(7), 753–767. <https://doi.org/10.1080/07399332.2013.838247>
 - [97] Zhou, X., Ma, Q., Pan, X., Chen, L., Wang, H., & Jiang, T. (2020). The prevalence and correlates of oral sex among low-tier female sex workers in Zhejiang province, China. *PLoS ONE*, 15(9 September), 1–14. <https://doi.org/10.1371/journal.pone.0238822>
-