

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

**PSYCHOLOGICAL CHARACTERISTICS OF COLLEGE STUDENTS WHO HAVE
FACED SEXUAL HARASSMENT ON PUBLIC TRANSPORT IN KERALA - A MIXED
METHOD STUDY**

Dissertation submitted to Kerala University

In partial fulfilment of the requirements for the award of the Degree of

M. Sc. Counselling Psychology

By

Noopura S

(Reg. No: 60421115016)

Under the guidance of

Dr Ammu Lukose

Assistant professor in Counselling Psychology



Department of Counselling Psychology

Loyola College of Social Sciences

Sreekariyam, Thiruvananthapuram

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CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

CERTIFICATE



This is to certify that the Dissertation entitled “**Psychological Characteristics of college students who have faced sexual harassment on public transport in Kerala - A mixed method study**” is an authentic work carried out by Noopura S, Reg. No. 60421115016 under the guidance of Dr. Ammu Lukose during the fourth semester of M.Sc. Counselling Psychology programme in the academic year 2021- 2023.

Ms. Jesline Maria Mamen

Dr. Ammu Lukose

Head of the Department

Assistant Professor

Department of Counselling Psychology

Department of Counselling Psychology

Loyola College of Social Sciences

Loyola College of Social Sciences

Thiruvananthapuram

Thiruvananthapuram

Submitted for the examination held on

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DECLARATION

I, Noopura S, do hereby declare that the dissertation titled “**Psychological Characteristics of college students who have faced sexual harassment on public transport in Kerala - A mixed method study**”, submitted to the Department of Counselling Psychology, Loyola College of Social Sciences, Sreekariyam, under the supervision of Dr Ammu Lukose, Assistant professor of the Department of Counselling Psychology, for the award of the degree of Master’s in Science of Counselling Psychology, is a bonafide work carried out by me and no part thereof has been submitted for the award of any other degree in any University.

Sreekariyam

Name: Noopura S

Date:

Reg. No. 60421115016

M.Sc. Counselling Psychology

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

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With Regards,

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TABLE OF CONTENTS

ABSTRACT

	Page Number
CHAPTER - 1 INTRODUCTION	1-7
	5
1.1: Need and significance of the study	
1.2: Statement of the problem	5
1.3: Operational Definition	5-7
1.4: Objectives	7

	Page Number
CHAPTER - 2 REVIEW OF LITERATURE	8-18
	9
2.1: Theoretical Review	
2.1.1. Concept of sexual harassment	9-10
2.1.2. Sexual harassment in India	10
2.1.3. Definition of sexual harassment in the context of public transport	11
2.1.4. Routine activity theory	11
2.1.5. Social learning theory	11-12
2.1.6. Bystander effect	12
2.2: Empirical Review	12
2.2.1. Studies related to Prevalence of sexual harassment in public transportation	12-14
2.2.2. Studies related to sexual harassment on public transport, its related factors and impact	14-17
2.2.3. Studies related to strategies used to reduce sexual harassment on public transport	17
2.2.4. Research Gap	18

	Page Number
CHAPTER - 3 RESEARCH METHODOLOGY	19-28
3.1: Research Design	20-21
3.2: Sample and sampling method	21-22

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

3.3: Tools used for data collection	22-25
3.4: Procedure for data collection	25-26
3.5: Data Analysis	26-28

	Page Number
CHAPTER - 4 RESULT AND DISCUSSION	29-48
4.1: DEMOGRAPHIC DATA	30-31
4.2: The type of sexual harassment faced by college students at public transport, its frequency and percentage.	32-33
4.3: The kind of reaction given by college students who has faced sexual harassment at public transport.	33-35
4.4: The kind of feeling experienced by college students during the sexual harassment incident at the public transport.	35-37
4.5: Factors affecting sexual harassment at public transport	37-38
4.6: Prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport	38-40
4.7: The no of college students who has faced multiple sexual harassments at public transport.	40-42
4.8 Table shows the themes and subthemes obtained by the researcher.	42-48

	Page Number
CHAPTER – 5 SUMMARY AND CONCLUSION	49-54
5.1: Major findings and conclusions	50-52
5.2 Implications of the study	52-53
5.3: Limitations of the study	54
5.4: Suggestions for further research	54

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

LIST OF TABLES

TITLE	Page Number
4.1: DEMOGRAPHIC DATA	30-31
4.2: The type of sexual harassment faced by college students at public transport, its frequency and percentage.	32-33
4.3: The kind of reaction given by college students who has faced sexual harassment at public transport.	33-35
4.4: The kind of feeling experienced by college students during the sexual harassment incident at the public transport.	35-37
4.5: Factors affecting sexual harassment at public transport	37-38
4.6: Prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport	38-40
4.7: The no of college students who has faced multiple sexual harassments at public transport.	40-42
4.8 Table shows the themes and subthemes obtained by the researcher.	42-48

	Page Number
REFERENCES	55-61
APPENDICES	62-71

ABSTRACT

This study examines the psychological characteristics of college students who have faced sexual harassment while using public transportation in Kerala. Employing convenience sampling, a sample of 210 students aged 18-30 was selected. Quantitative data was collected from 200 students through a Google form, while qualitative insights were gathered from 10 students via semi-structured telephone interviews. The study employed the Depression, Anxiety, and Stress Scale (DASS-21) (1995), as well as the Psychological Wellbeing Scale (1995). Semi-structured questionnaires informed by sexual harassment studies were also utilized. Findings unveiled the prevalent forms of harassment, with 68.5% experiencing staring and 47% facing inappropriate touching. Voyeurism and kissing were rare at 1.5%. Responses to incidents included 59% reciprocating with stares, 4% involving the police, 43.5% walking away, and 33.5% ignoring the situation. Emotional reactions exhibited 70% feeling anger and 12.5% reporting depression among 140 participants. Incidents mainly occurred on buses (86%), during evening hours (41%), and in crowded vehicles (71%), with metro incidents at 15.5% and late-night encounters at 10%. Psychological well-being prevalence varied: lower (1%), average (64.5%), and higher (34.5%). Depression levels ranged from normal (27%) to severe and extremely severe (14.5%, 15.5% respectively). Anxiety levels included normal (71%), mild, and extremely severe (12%, 5% respectively). Stress levels ranged from normal (95%) to mild and moderate (4%, 5% respectively). Around 66.5% faced multiple harassment types, with some enduring up to 16 forms. Thematic qualitative analysis revealed the profound impact on victims' psychological and physical well-being. Themes included diverse emotional responses, immediate reactions demonstrating resilience, and long-term effects emphasizing the need for support and systemic change. Urgent interventions are crucial to address this issue and aid survivors on their path to recovery and empowerment.

Keywords: sexual harassment, public transport, college students, Kerala, Psychological characteristics

CHAPTER -1
INTRODUCTION

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Sexual harassment of women is a form of gender-based violence that exists on a global scale. It is characterized by a wide range of distasteful and unsolicited acts of a sexual nature carried out against women at the expense of their freedom and comfort (Madan & Nalla, 2016). Behaviours that constitute sexual harassment can be classified into three forms, namely: verbal, non-verbal, and physical forms of sexual harassment (Gautam et al., 2019; Madan & Nalla, 2016; Mamaru et al., 2015). Sexual harassment of women is not only limited to private spaces, but also can take place in public spaces such as on the streets, workplaces, and also on public transportation (Chafai, 2017; Mishra & Lamichhane, 2018; Tripathi et al., 2017).

Globally, women and girls are subjected to various forms of sexual harassment while using public transport daily. In countries like India, well into the twenty-first century, students are to be vulnerable to abuse. According to the latest report of the National Crime Records Bureau, India, 338,954 cases were registered under the head 'Crimes against Women' in 2016, around 3 per cent higher than that of the previous year.

As stated earlier, it is plain that most college students opt for public transportation to commute mobility. Fallout is that most are harassed by fellow travellers and bus operators during their commute, and the harassment can take verbal, physical, psychological or financial forms.

Sexual harassment

Sexual harassment refers to any form of sexual harassment, including unwanted sexual actions, approaches, or behavior. Other forms of harassment take time to manifest or become more severe, but sexual harassment has an immediate effect. Sexual harassment is one of the types of unlawful employment discrimination that is immediately dealt with. Harassment in public transportation in India can take various forms. It is important to note that these types of harassment are not exclusive to India and can occur in different countries as well.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Here are some common types of harassment reported in public transport settings in India:

1. **Verbal Harassment:** This includes unwelcome comments, catcalling, lewd remarks, and sexual innuendos directed towards individuals, often with explicit or offensive language.
2. **Physical Harassment:** Physical harassment involves unwanted touching, groping, or brushing against someone's body without consent. It can occur in crowded spaces, such as buses, trains, or metro stations.
3. **Staring and Gazing:** Prolonged staring, ogling, or leering at individuals in a sexualized manner can make them feel uncomfortable, violated, and objectified.
4. **Sexual Assault:** In extreme cases, sexual assault may occur, which involves non-consensual sexual contact, such as molestation or rape. These incidents are criminal offenses and have severe consequences.
5. **Harassment via Mobile Devices:** With the widespread use of smartphones, incidents of harassment through unwanted calls, messages, or capturing images without consent (upskirting, taking photos under skirts or dresses) have also been reported.

The experience of sexual harassment within public transportation systems is a distressing and concerning issue that has garnered increasing attention due to its profound psychological ramifications on individuals. Sexual harassment, a pervasive problem affecting people of all genders, can leave lasting imprints on the psychological characteristics of those who have faced such incidents while using public transport. Understanding the psychological dimensions of these experiences is crucial for devising effective interventions and support mechanisms. Individuals who have encountered sexual harassment in public transport often grapple with a range of psychological responses. Feelings of shame, humiliation, and violation can result from the invasion of personal space and the disregard for one's autonomy. The sense of vulnerability triggered by these incidents

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

can erode self-esteem and self-worth, fostering a heightened state of anxiety and hyper vigilance during subsequent travel experiences. Anxiety, a common psychological consequence, may stem from the fear of recurrence or the anticipation of further victimization. This anxiety can extend beyond the transportation context, permeating other aspects of daily life. Additionally, individuals who have been subjected to sexual harassment might experience a sense of powerlessness, leading to feelings of anger, frustration, and even depression. These emotions can be further exacerbated by the often complex and unsupportive reactions from others, such as victim-blaming or dismissal of the severity of the incident.

Coping mechanisms also come into play as survivors of sexual harassment attempt to navigate the aftermath. While some individuals might seek social support and professional help to process their experiences, others might resort to avoidance strategies, altering their travel patterns or even avoiding public transportation altogether. These adaptations can have cascading effects on mobility, social participation, and overall quality of life.

Furthermore, the psychological impact of sexual harassment within public transport is not limited to the immediate aftermath of the incident. Long-term consequences can include an altered sense of personal safety, heightened vigilance, and a reduced sense of trust in others. These effects can spill over into various domains, from relationships to work and overall well-being.

In conclusion, the psychological characteristics of individuals who have faced sexual harassment while using public transport are multifaceted and complex. The emotional toll of such experiences encompasses feelings of shame, anxiety, vulnerability, anger, and depression. Recognizing and addressing these psychological repercussions is vital for creating safer and more inclusive transportation environments and providing appropriate support for survivors. In this particular context, considering recent events in Kerala, the researcher conducts the study on Psychological profiling of college students who have faced sexual harassment on public transport in Kerala.

1.1 Need and significance of the study

“Evidence from national crime records of Indian cities shows that while the prevalence of sexual harassment on public transport and in public spaces is high, reporting and subsequent actions taken for redressal are perceived to be low,” the report said.(India today,2022).

It is evident from the daily lives of cross sections of the urban and rural society that most college students choose to opt for public transportation. Regrettably, during the course of their travel, they are susceptible to verbal, physical, psychological and financial harassment at the hands of their fellow travellers and bus operators. Underreporting ensures that cases of this kind do not surface in mainstream media. Though there have been multiple sexual harassment cases in public transport which has happened in the recent past in Kerala, except the percentages there is not much with respect to context, types and detailing in the national crime records. In the recent past, to the best of the knowledge of the researcher, very few studies have been conducted around the world on this subject in general, and in India in particular. Hence, the present research assumes significance.

1.2 Statement of the problem

The psychological characteristics of individuals who have faced sexual harassment while using public transport are multifaceted and complex. The emotional toll of such experiences encompasses feelings of shame, anxiety, vulnerability, anger, and depression. Recognizing and addressing these psychological repercussions is vital for creating safer and more inclusive transportation environments and providing appropriate support for survivors. Hence the problem of the study has been stated as “Psychological characteristics of college students who have faced sexual harassment on public transport in Kerala”-A mixed method study.

1.3 Operational definitions of key terms

- **Psychological characteristics**

Psychological characteristics in this study refer to the individual traits, qualities, and patterns of thinking, feeling, and behaving that are unique to each person. These characteristics encompass a wide range of psychological factors, including emotional patterns, and coping mechanisms.

- **Sexual harassment**

In this study Sexual harassment refers to any form of sexual harassment, including unwanted sexual actions, approaches, or behavior. Sexual harassment offenses fall into three categories: verbal, non-verbal, and physical. Verbal offenses include sexual comments, kissing noises, whistling, or even being asked to have sex. Non-verbal harassment includes indecent exposure, being shown pornographic images, and stalking. Physical harassment includes groping a person's body or playing with her hair, unwanted kissing, as well as the most serious crimes of sexual assault and rape.

- **Depression**

In this study Depression refers to a negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. (Lovibond, S.H. & Lovibond, P.F, 1995)

- **Anxiety**

In this study Anxiety refers to an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure, autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. (Lovibond, S.H. & Lovibond, P.F, 1995)

- **Stress**

In this study Stress is a normal reaction to everyday pressures, but can become unhealthy when it upsets your day-to-day functioning. Stress involves changes like difficulty relaxing, nervous arousal,

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

and being easily upset / agitated, irritable / over-reactive and impatient affecting nearly every system of the body, influencing how people feel and behave. (Lovibond, S.H. & Lovibond, P.F, 1995)

- **Psychological wellbeing**

In this study Psychological well-being is defined as one's level of psychological happiness/health, encompassing life satisfaction, and feelings of accomplishment, autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. (Ryff, et al 1995)

1.4 Objectives of the study

- To understand the type of sexual harassment faced by college students at public transport.
- To understand the kind of reaction by college students who has faced sexual harassment at public transport.
- To understand the kind of feeling experienced by college students during the sexual harassment incident at the public transport.
- To understand the factors affecting sexual harassment at public transport.
- To understand the prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport.
- To describe the no of sexual harassments faced by college students at public transport.

CHAPTER – 2

REVIEW OF LITERATURE

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

The present chapter discusses in depth the variables that are being studied, the literature available on the variables selected, and the need for the study and identifies the research gap of the study. The chapter is separated into different topics based on the variables.

2.1 Theoretical review

The theoretical literature review help establish what theories already exist, the relationships between them, to what degree the existing theories have been investigated, and to develop new hypotheses to be tested. Often this form is used to help establish a lack of appropriate theories or reveal that current theories are inadequate for explaining new or emerging research problems. The unit of analysis can focus on a theoretical concept or a whole theory or framework. The session gives a brief idea regarding the theories and definitions of sexual harassment and psychological impact of sexual harassment at public places.

2.1.1. Concept of sexual harassment

The concept of sexual harassment, especially in the context of public transport, has evolved over time. The earliest recognized definition of sexual harassment can be attributed to the groundbreaking work of Dr. Mary Rowe, an organizational psychologist. In 1973, she published a paper titled "The Unwanted Sexual Attention Project" while working at the Massachusetts Institute of Technology (MIT). In this paper, she introduced the term "sexual harassment" to describe unwelcome and offensive behaviours of a sexual nature in the workplace.

Rowe is a respected scholar in the field of organizational psychology and is known for her contributions to the understanding of workplace harassment, including sexual harassment. Although Rowe's work was primarily focused on the workplace, her ideas laid the foundation for understanding harassment in various settings, including public transport.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Mary Rowe's definition of sexual harassment in the workplace, which can be adapted to the context of public transport, can be summarized as follows:

"Unwanted sexual advances, requests for sexual favours, or other verbal or physical conduct of a sexual nature that interfere with an individual's work (or, in the case of public transport, create an intimidating or hostile environment) and that is explicitly or implicitly made a condition of an individual's employment (or use of public transport), or used as the basis for employment decisions (or access to public transport services), or that has the purpose or effect of unreasonably interfering with an individual's work performance (or comfort and safety during travel) or creating an intimidating, hostile, or offensive work environment (or travel experience)."

2.1.2. Sexual harassment in India

Sexual harassment in India is termed "Eve teasing" and is described as: unwelcome sexual gesture or behaviour whether directly or indirectly as sexually colored remarks; physical contact and advances; showing pornography; a demand or request for sexual favours; any other unwelcome physical, verbal or non-verbal conduct being sexual in nature or passing sexually offensive and unacceptable remarks. The critical factor is the unwelcomeness of the behaviour, thereby making the impact of such actions on the recipient more relevant rather than intent of the perpetrator (NCW, 2013). According to the Indian constitution, sexual harassment infringes the fundamental right of a woman to gender equality under Article 14 and her right to life and live with dignity under Article 21. (Desal & Dhruv, 2003).

2.1.3. Definition of sexual harassment in the context of public transport

A widely recognized and standard definition of sexual harassment in the context of public transport is provided by the United Nations in its publication titled "Roadmap for Respect, Dignity, and Equality: Ending Sexual Harassment" (2018). While this publication focuses on sexual harassment in

various settings, including public transport, it offers a comprehensive definition that can be applied to this context:

"Sexual harassment is defined as any unwelcome sexual advance, request for sexual favours, or other verbal, non-verbal, or physical conduct of a sexual nature that interferes with an individual's work or public transport experience, creating a hostile, intimidating, or offensive environment."

This definition highlights that sexual harassment encompasses a wide range of behaviours and interactions that are unwelcome and create a negative environment for the victim. It emphasizes the impact on the individual's experience within the public transport setting.

There are theories that can help us understand the issue of sexual harassment on public transport. These theories often analyse the root causes, contributing factors, and potential solutions. Keep in mind that these theories may not cover all aspects and may not be exhaustive, but they provide valuable insights into the problem:

2.1.4. Routine Activity Theory

The Routine Activity Theory (RAT), introduced by Cohen and Felson, offers insights into victimological research and has garnered support through global studies. According to Cohen and Felson, criminal acts result from the convergence of three key factors: a 'motivated offender,' a 'suitable target,' and the 'absence of a capable guardian.' Concerning sexual harassment on public transportation, it is suggested that crowded buses or deserted trains could provide a conducive environment and motivation for potential wrongdoers. This blend of opportunity, alongside the prevalence of underreporting, drives potential offenders to identify vulnerable victims as optimal 'targets.' The lack of a protective presence further exacerbates harassment. This issue is intensified by factors like inadequate complaint mechanisms, perpetrators being unfamiliar individuals, and the

absence of dedicated legislation addressing sexual harassment on public transportation. Collectively, these factors culminate in the absence of a protective guardian. (L. Cohen & M. Felson, 1979)

2.1.5. Social Learning Theory

The Social Learning Theory was initially developed by Albert Bandura in 1963. This theory suggests that individuals learn and adopt behaviours through observing and imitating others, and reinforcement plays a role in reinforcing or discouraging those behaviours. In the context of harassment, this theory highlights how such behaviour if not adequately addressed or goes unpunished, unchecked, can create a cycle where individuals learn that such behaviour is tolerated, leading to normalization and perpetuation of that behaviour. (Bandura, 1963)

2.1.6. Bystander Effect

The concept of the bystander effect was first popularized by social psychologists John Darley and Bibb Latané. Their ground-breaking research on this topic was published in an article titled "Bystander Intervention in Emergencies: Diffusion of Responsibility" in the *Journal of Personality and Social Psychology* in 1968. The bystander effect refers to the phenomenon where individuals are less likely to intervene in a situation when others are present. The diffusion of responsibility in a group setting can lead to a decreased likelihood of someone stepping in to help. This effect is particularly relevant in public transportation contexts, where the presence of many passengers can contribute to this phenomenon. In public transport, the presence of many passengers may lead to diffusion of responsibility, making it less likely for someone to step in and help if they witness harassment. (Darley & Latané, 1968).

2.2 Empirical Review

The following reviews explore the research conducted on the field of Psychological characteristics of college students who have faced sexual harassment on public transport in Kerala.

2.2.1. Studies related to Prevalence of sexual harassment in public transportation

Valan's (2020) study aimed to assess the prevalence and nature of harassment suffered by women using public transportation in Chennai city in victimological perspective. The study selected a convenience sample comprising 530 women who regularly used public transportation, and data collection occurred through a self-administered questionnaire. The study's outcomes distinctly reveal that approximately one-third of young women commuting within Chennai city reported instances of sexual harassment during the past six months. Notably, the majority (81%) of these incidents occurred within the age bracket of 18 to 22 years. Moreover, the research highlights a significant trend: women from middle- and low-income backgrounds encounter higher frequencies of sexual harassment compared to those from higher-income backgrounds. The study also discovers that nearly three-fourths of the harassment incidents transpire during periods of overcrowding in both buses and trains. Another important observation is that women who experience harassment while using public transportation are less inclined to report these incidents to the police station, irrespective of their educational status, when compared to victims sexually harassed in other circumstances.

In 2022, Mosha et al. conducted a research study aimed at assessing the prevalence of sexual harassment and identify different forms and associated risk factors among female university students who use public transport in Dar es Salaam, Tanzania. The study adopted a cross-sectional design and utilized a questionnaire to gather information. The study specifically targeted female first-year undergraduate students, aged 18 years and older, who employ public transportation and are enrolled at the University of Dar es Salaam and Muhimbili University of Health and Allied Sciences. The outcomes of the study revealed an overall prevalence of sexual harassment while using public transport at a concerning rate of 88%. Among the study participants, the highest incidence of sexual harassment was reported at 91%. Verbal harassment emerged as the most frequent form of sexual harassment, accounting for 95% of the incidents. Among the reported instances, a significant number

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

of students (78%) experienced verbal harassment in the form of derogatory terms such as "baby," "sweet," "honey," or "love."

In 2019, Gautam and colleagues conducted a study aimed at determining the prevalence of sexual harassment in public transportation and its consequences on female students in the Kathmandu valley of Nepal. The research employed a structured questionnaire to gather data from five health science institutions situated in the valley. Through the utilization of both Univariate and multivariate logistic regression models, the study aimed to pinpoint connections between instances of sexual harassment and the contributing factors behind them. The study's findings indicated a noteworthy increase in incidents of sexual harassment among female students residing independently and those who frequently travelled during the evening hours within the Kathmandu Valley.

Wagle et al, 2022 had conducted a descriptive cross-sectional study which investigated the prevalence of sexual harassment in public transportation among 196 female students of a public college at Bharatpur, using stratified proportionate random sampling technique. It was found that 82.1% of the respondents experienced sexual harassment, with male passengers being the main perpetrators involved in physical (82.8%), verbal (75.2%) and non- verbal harassment (81.6%).Furthermore, 96.3% of the participants did not file a complaint due to fear.

2.2.2. Studies related to sexual harassment on public transport, its related factors and impact

A global comparative study surveyed 11,710 college students from 18 cities in six continents to investigate sexual harassment in transit environments. It found that sexual harassment is a common occurrence, with certain individual and environmental characteristics increasing the risk. Female students are disproportionately affected, but some male students also report experiences of victimization. The study concludes with a discussion of multi-pronged responses to harassment. (Loukaitou-Sideris & Ceccato, 2021).

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Another exploratory study in Lucknow, by Tripathi et al, (2017) examines sexual harassment of female students in Lucknow on public transport. The study explores actual and witnessed victimisations as well as perceptions of the risk by a sample of 200 tertiary female students in Lucknow, India. It finds that sexual harassment is most prevalent in buses and increases with the frequency of use, and those incidents experienced as a victim and as a witness were comparable, suggesting events of sexual harassment are not widely noticed by other passengers, perhaps because they are so commonplace as not to be especially noticed. Finally, the respondents felt female students were particularly targeted amongst women more generally, but did not identify any specific risk factors in relation to the profiles of the offenders or victims.

The concern regarding crime is potentially hindering endeavours to enhance the utilization of public transportation in Australian urban centres. Gardner et al, (2017), study about 'Harassment on public transport and its impacts on women's travel behaviour' examines global literature concerning harassment and commuting patterns, emphasizing its occurrence and its influence on transportation behaviour through the lens of fear of crime. The paper assesses potential planning-related remedies. The relevance of international instances to the Australian setting underscores possible research avenues aimed at comprehending the societal consequences and plausible resolutions to harassment issues linked to public transit in Australia.

Lewis et al, 2020 presented an article which includes comprehensive analysis of women's encounters with sexual harassment in the London Underground, based on 29 qualitative interviews with victims. Drawing from mobility studies, the article introduces a novel theoretical framework and identifies three main aspects of these harassment experiences. Firstly, the Underground's operational patterns, such as peak hours and night-time, both facilitated and concealed various forms of harassment. Secondly, women often refrained from reacting to harassment due to adhering to the customary urban indifference on the tube, exacerbated by a desire not to disrupt their own and fellow passengers' urban journeys. Thirdly, the transient nature of the Underground context meant that

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

women barely had time to process the harassment before it ended, expecting it to be short-lived, while allowing perpetrators to vanish within the network. The article suggests that these characteristics contribute to the persistent and underreported nature of harassment in public transport and provides valuable insights for studying harassment in diverse settings and other crimes within transportation environments.

Kacharo et al, 2022 had conducted this study to assess women and girl's safety and security in public transport and identify factors contributing to violence in Hawassa city, Ethiopia. The study collected data from 199 respondents who were randomly selected. Additionally, the research involved 24 participants in focus group discussions. For quantitative data analysis, Binary Logistic Regression was employed, while the qualitative analysis of the focus group discussions used narrative analysis. The study identified various forms of violence, including physical, sexual, and psychological. The findings revealed that more than half (50.8%) of the women and girls surveyed had encountered more than one type of violence while using public transportation. The research outcomes indicated that six specific variables significantly correlated with incidents of violence. These variables included age, marital status, the type of public transportation utilized, travel duration, the quality of facilities, and the management of public transport services.

Kaygan et al, 2022 explores the gendered interactions mediated by designed products, specifically public transportation. The empirical basis of research comes from interviews with women passengers. It finds that gender-neutral designs can be gender-blind and expose women to the risk of sexual harassment and assault. Therefore, it suggests feminist design interventions into mobility environments can provide immediate practical solutions that would be complementary to the policy and law making efforts that are necessary to ensure safety for women in public transport.

Yet another experimental study investigates the factors that influence women's perceived risk of sexual harassment while using public transport in Colombia. In this study, we designed an image-

based stated preferences survey based on the current bus rapid transit (BRT) system in Barranquilla, Colombia. Several variables were considered in this experiment including the time of the day, surveillance, and crowding, among others. The results show that more than 60% of respondents have been a victim of sexual harassment while using the BRT system. It finds that overcrowded buses have the most negative effect on the perceived risk of sexual harassment, and travelling at night, lighting and being alone were all significant variables. The findings of this research can be used to develop countermeasures and increase public transport ridership. (Fontalvo et al, 2019).

2.2.3. Studies related to strategies used to reduce sexual harassment on public transport

Lea et al, 2017 studies women's strategies for responding to and managing sexual harassment and assault on public buses in India using crowd sourced data. The study examines 137 accounts of assault collected by a crowd sourced platform in which women detail, keeping silent (n = 27), fleeing (n = 38), or resisting (n = 72) such an assault. It finds that confronting incidents in the moment by “making a scene” and “engaging the crowd” works well in the closed, shared-space setting of a crowded public bus, and suggests crowd mapping as a multi-faceted tool.

Another document reports the findings of a rapid evidence assessment, conducted on behalf of the British Transport Police, to identify the main initiatives that are being used to reduce sexual harassment and assault on public transport nationally and internationally, and whether these 'work'. Literature searches and a 'call for information' identified 1889 potential source materials, 191 of which were ultimately deemed relevant. The main intervention approaches are identified, and where available, the intervention effectiveness is evaluated. Overall, it was found that there is very little rigorous evaluation of these initiatives, and therefore much of the evidence is based upon the views of passengers, staff and transport managers. Recommendations, including thorough evaluation of a range of interventions, including staffing, policing, CCTV and passenger information, are made. (Gekoski et al, 2015)

2.2.4. Research gap

Thus, the previous theoretical and empirical studies have found that sexual harassment at public transport can have serious effects on college student's psychological characteristics as well as on their perception about public transportation usage and its safety. The various problems that may contribute to sexual harassment at public transport as well as the psychological characteristics of people who has faced sexual harassment at public transport were not studied in depth or very little research was conducted in this field of study.

Though there have been multiple sexual harassment cases in public transport which has happened in the recent past in Kerala, except the percentages there is not much with respect to context, types and detailing in the national crime records. Although sexual harassment at public transport and its psychological impact or psychological characteristics of those who have faced sexual harassment has been studied separately, the relationship between these two variables was rarely studied.

Furthermore, in the recent past to the best of the knowledge of the researcher, the research on psychological characteristics of college students who have faced sexual harassment on public transport is extremely scant and limited to the population of Western students. The population of Indian students, especially Kerala population has not been studied extensively in this regard and thus emerges the research gap.

CHAPTER – 3

RESEARCH METHODOLOGY

In behavioural research, a large variety of research methods are applied, all of which are differing in several respects. Researchers have the responsibility to choose a method that serves best for the study, suits the studied construct and the investigated subjects available, and eventually reflects the applied psychological approach. The decision must be cautious and scientifically confirmed, as all methods imply not only advantages but limitations and downfalls.

This chapter describes and discusses how researchers have gathered the necessary data and information that will be used in the entire study. This chapter describes what is the focus of research, who are the respondents, the procedure of data collection as well as instruments used, and the type of research and research method used in this study.

3.1 Research Design

A research design is ‘the procedures for collecting, analysing, interpreting and reporting data in research studies’ (Creswell& Plano Clark 2007, p.58). It is the overall plan for connecting the conceptual research problems with the pertinent empirical research. The research design sets the procedure on the required data, the methods to be applied to collect and analyse this data, and how all of this going to answer the research question. There are a number of research questions in every research that can be done using a research design.

This research employs a mixed method.

Mixed method research

A mixed method research is a design that utilizes both quantitative (numeric) and qualitative (descriptive) research elements to gain a conclusion for a study. A mixed methods study is likely to utilize several data collection practices and evaluation processes that are appropriate for both quantitative and qualitative approaches.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Qualitative research is used to gain an understanding of human behaviour, intentions, attitudes, experience, based on the observation and interpretation of people. It is an unstructured and exploratory technique that deals with highly complex phenomena. This kind of research is usually done to understand the topic in-depth. It is carried out by taking interviews with open-ended questions, observations that are described in words, and so on. Whereas, quantitative research method develops numerical data and hard facts. It establishes the cause-and-effect relationship between two variables using different statistical, computational, and statistical methods. As the results are accurately and precisely measured, this research method is also termed as “Empirical Research”. This type of research is generally used to establish generalised facts about a particular topic. This type of research is usually done using surveys, experiments, and so on.

A cross-sectional research design is used in this research.

Cross sectional design

It is a type of research design in which looking at data from a population at one specific point in time. The participants in this type of design are selected based on particular variables of interest. These designs are observational in nature and are known as descriptive research. This type of design can be used to describe characteristics that exist in a community, but not to determine cause and effect relationship between different variables.

3.2 Sample and sampling method

A sample of 210 college students between the age ranges of 18-30 were taken for the study, in which 200 student's data was collected quantitatively through a Google form and 10 students data was collected qualitatively through semi-structured telephone interview. Convenience sampling was used

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

for collecting the sample. None of the samples were excluded as they all fit within the inclusion criteria and did not meet the exclusion criteria.

Inclusion criteria

- College students in Kerala who has faced sexual harassment at public transport (bus, auto rickshaw, train or metro).
- Age range: 18-30 (criteria)
- Can read and comprehend English language

Exclusion criteria

- Students with physical and psychological illnesses
- Students who cannot read and comprehend English

Ethical Considerations

Informed Consent form was attached with the questionnaire. Anonymity and confidentiality of participants were maintained by not collecting or publishing any personal information, including name of the participants. Participants were assured that their participation is completely voluntary and they are free to withdraw from the study at any time for whatsoever reason. There was no financial risk or harm associated with the study. All data collected was saved in coded form .i.e. using initials, to maintain anonymity.

3.3 Tools used for data collection

The present study contains two inventories and two questionnaires for the data collection procedure:

- Depression, Anxiety and Stress Scale (DASS-21) by Lovibond, S.H. & Lovibond, P.F, (1995)
- Psychological Wellbeing Scale by Ryff, C.D & Keyes, C.L.M (1995)

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

- Semi-structured questionnaire based on sexual harassment at public transport based on studies of Valan, 2020 and Mosha et al, 2022.
- Personal data sheet
- Informed Consent Form
- Semi-structured questionnaire based on sexual harassment at public transport for telephone interview

Depression, Anxiety and Stress Scale - 21 Items (DASS-21)

The Depression, Anxiety and Stress Scale (DASS-21) by Lovibond, S.H. & Lovibond, P.F, in 1995 are a set of three self-report reliable and valid scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale include items – 3,5,10,13,16,17,21 which assess dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. The anxiety scale includes items – 2,4,7,9,15,19,20 which assess autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. The stress scale includes items – 1, 6,8,11,12,14,18 which assess difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient.

The responses are to be scored using a four-point Likert scale from 0 to 3 respectively for never, sometimes, often, and almost always. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. Interpretation typically follows these ranges: Depression - Normal: 0-9, Mild: 10-13, Moderate: 14-20, Severe: 21-27 and Extremely Severe: 28+. For Anxiety - Normal: 0-7, Mild: 8-9, Moderate: 10-14, Severe: 15-19 and Extremely Severe: 20+. For Stress - Normal: 0-14, Mild: 15-18, Moderate: 19-25, Severe: 26-33 and Extremely Severe: 34+.

Psychological Wellbeing Scale (PWB)

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

This scale was developed by Ryff, C.D., & Keyes, C.L.M. in 1995. The scale and considerable reliability and validity and helps in identifying various dimensions of psychological wellbeing. The scale consists of 18 items, in which 8 items are positive and 10 items are negative. The scale has 6 dimensions namely: Autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self- acceptance. The responses are to be scored from 1 to 7 respectively for strongly agree, somewhat agree, a little agree, neither agree or disagree, a little disagree, somewhat disagree, and strongly disagree. There are exceptional cases to be noted in scoring process. The items 1,2,3,8,9,11,12,13,17 & 18 should be reverse scored. Reverse scored items are worded in the opposite direction of what the scale is measuring. Items 15,17,18 included autonomy subscale, Items 4,8,9 included the environmental mastery subscale, Items 11,12,14 included the personal growth subscale, Items 6,13,16 included the positive relations with others subscale, Items 3,7,10 included the purpose in life subscale, Items 1,2 & 5 included the self-acceptance subscale. The total score provides an overall indication of an individual's psychological well-being. Scores ranging from 91-126 generally indicate higher levels psychological of well-being, while scores ranging from 55-90 generally indicate average levels of psychological well-being and 18-54 generally indicate lower psychological well-being.

Semi-structured questionnaire based on sexual harassment at public transport

Semi-structured questionnaire based on sexual harassment at public transport was created based on the selected items from Valan's study on prevalence and nature of harassment suffered by women using public transportation in Chennai city in victimological perspective (2020), as well as from Mosha et al, study on prevalence of sexual harassment and identify different forms and associated risk factors among female university students who use public transport in Dar es Salaam, Tanzania. This questionnaire was used to collect details related to sexual harassment and its context, which includes types of harassment faced by college students at public transport, kind of responses given

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

by college students, kind of feelings experienced by college students during the incident whether the vehicle was overcrowded or not and time of travel.

Personal data sheet

In this research demographic details of the participant such as name/initials, age, gender, educational qualifications, nativity, economic status and marital status are included.

Informed Consent Form

The consent form provides potential research subjects with sufficient written information to decide whether to participate in a research study or not based on an explanation of the proposed research and the nature of participation that is requested of them. The voluntary consent of all the participants was selected at the beginning of the study.

Semi-structured questionnaire based on sexual harassment at public transport for telephone interview

A semi-structured questionnaire based on sexual harassment at public transport was created for telephone interview. The questions were framed based on the researches of Valan, 2020 and Mosha et al, 2022 based on their study about prevalence, nature and risk factors associated with sexual harassment in public transport at Chennai city and Dar es Salaam, Tanzania. The questionnaire includes name, place, age, gender, description of a specific instance of sexual harassment faced while traveling on public transport as a college student in the past year, feeling and response during the incident, psychological and physical impact afterward, duration of psychological and physical impact and actions or suggestions expecting from the law and government to prevent sexual harassment while traveling on public transport.

3.4 Procedure of data collection

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

The quantitative data collection was done online by converting all the three tools into Google Forms. The participants could voluntarily participate in the study. College students who have faced sexual harassment at public transport in Kerala were targeted. All ethical considerations were taken into account. Informed consent was taken. Participants were assured of the confidentiality, privacy and anonymity of their data. The data is stored in the form of codes. No names were taken. A brief description of the nature of the study and informed consent was provided on the first page, followed by socio-demographic data sheet, Semi-structured questionnaire based on sexual harassment at public transport, Depression, Anxiety and Stress Scale (DASS-21) and finally Psychological Wellbeing scale. Once they had filled out the questionnaire, they were thanked for their participation in the study. After the data was collected, a thorough check on the responses obtained was done. It was converted into an Excel Worksheet to facilitate easy data coding and analysis. Scoring will be done as per the manual. The design of the study is cross sectional and descriptive in nature.

The qualitative data was collected from 10 college students in Kerala who has faced sexual harassment at public transport through a semi structured telephone interview. In a semi structured telephone interview the interviewer does not strictly follow a formalized list of questions. They will ask a more open-ended question, allowing a discussion with the interviewee rather than a straightforward question and answer. The semi structured telephonic interview was conducted as it was not feasible to interview some of the college students who have faced sexual harassment at public transport directly. A questionnaire consisting of 7 questions were developed by the researcher to conduct a semi structured telephonic interview in order to understand the psychological characteristics of college students who have faced sexual harassment on public transport in Kerala. A good rapport was created with the samples. Strict ethical codes were followed. The interview was recorded with the consent of the sample. The questions were asked accordingly and emotionally provoking questions were removed. After that the data was analysed using thematic analysis. On the

basis of transcription and coding, the data was discussed and further suggestions and implications were noted.

3.5 Data analysis

The quantitative data obtained was converted to excel sheets and it was coded for scoring and analysis. Descriptive statistics were used for the analysis. The following statistical techniques used to analyse the data collected and to throw light on the information sought from the investigation such as - frequency analysis, pie charts and percentage. Frequency analysis and pie charts were used to assess prevalence of depression anxiety stress and psychological well-being among college students; factors affecting sexual harassment at public transport such as mode of transport, time of travel, context; types of sexual harassment, kind of reaction, kind of feeling; no of sexual harassments faced by college students and whether multiple kinds of response were given by college students towards sexual harassment at public transport.

Descriptive statistics

The term “descriptive statistics” refers to the analysis, summary, and presentation of findings related to a data set derived from a sample or entire population. Descriptive statistics are used to describe the characteristics or features of a dataset. The term ‘descriptive statistics’ can be used to describe both individual quantitative observations (also known as ‘summary statistics’) as well as the overall process of obtaining insights from these data.

Frequency analysis

It is a descriptive statistical method that shows the number of occurrences of each response chosen by the respondents.

For the qualitative data, thematic analysis was used to analyse the data.

Thematic analysis

Thematic analysis is the process of identifying patterns or themes within qualitative data. The goal of a thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting, and use these themes to address the research. This is much more than simply summarising the data. Typically, this reflects the fact that the data have been summarised and organised, rather than analysed. The analysis of the collected data explains the procedure in a way that the collected data are descriptively interpreted by the researcher and here the main procedure is that the researcher converts the collected data into a transcript. Then the developed transcript undergoes the process of coding. From the developed codes the researcher makes the dimensions and themes that are needed for the process and hence the analysis is done.

CHAPTER 4

RESULT AND DISCUSSION

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

The following chapter will discuss the results obtained in detail, to shed light on the phenomenon under study. The study aimed to understand the type of sexual harassment faced by college students at public transport, the kind of response given by college students, the factors affecting sexual harassment at public transport, the prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport and the no of sexual harassments faced by college students at public transport.

TABLE- 4.1 DEMOGRAPHIC DATA

Age	N	Percentage
18-20	14	7
20-22	51	25.5
22-25	124	62
25-30	11	5.5

Gender	N	Percentage
Female	168	84
Male	30	15
Transgender	2	1

Educational qualifications	N	Percentage
Undergraduate	75	37.5
Post-graduate	123	61.5
MPhil	0	0
PHD	2	1

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Nativity	N	Percentage
Urban	72	36
Semi-urban	74	37
Rural	54	27

Economic status	N	Percentage
High income	10	5
Middle income	163	83.5
Low income	23	11.5

Marital status	N	Percentage
Married	7	3.5
Un-married	193	96.5

The demographic details of the participants, such as age, gender, educational qualifications, nativity, economic status and marital status, were collected for the current study. The age distribution shows that higher student participation 62% (n=124) was from the age group of 22-25 and least no of students 5.5% (n=11) participated from 25-30. In case of gender and educational qualifications, higher no of students participated were female students, 84% (n=168) and postgraduate students, 61.5% (n=123) and less participation was from transgender students 1% (n=2) and PHD students, 1% (n=2). There weren't participation from MPhil students. Considering the nativity, economic and marital status; higher participation was from semi-urban 37% (n=74), middle income 83.5% (n=163) and unmarried students 96.5% (n=193). Lesser participation in the case of nativity, economic and marital status; was from rural 27% (n=54), high income 5% (n=10) and married students 3.5% (n=7).

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

4.2 The type of sexual harassment faced by college students at public transport, its frequency and percentage.

Types of sexual harassment	Frequency	Percentage
Inappropriate touching	94	47
Stalking	74	37
Trying to strike up a conversation	58	29
Staring	137	68.5
Asking for sexual favours	17	8.5
Passing lewd comments	28	14
Inappropriate comments on the body or attire	33	16.5
Flashing	18	9
Groping	10	5
Howling, smacking lips	24	12
Voyeurism	3	1.5
Someone kissing you	3	1.5
Someone standing behind or in front of you and inappropriately brushing their body against yours	56	28
Someone giving you compliments of a sexual nature	13	6.5
Someone whistling at you	35	17.5
Someone telling you jokes of a sexual nature	21	10.5
Someone calling you names such as baby, sweetie, and love	29	14.5
Someone asking personal	19	9.5

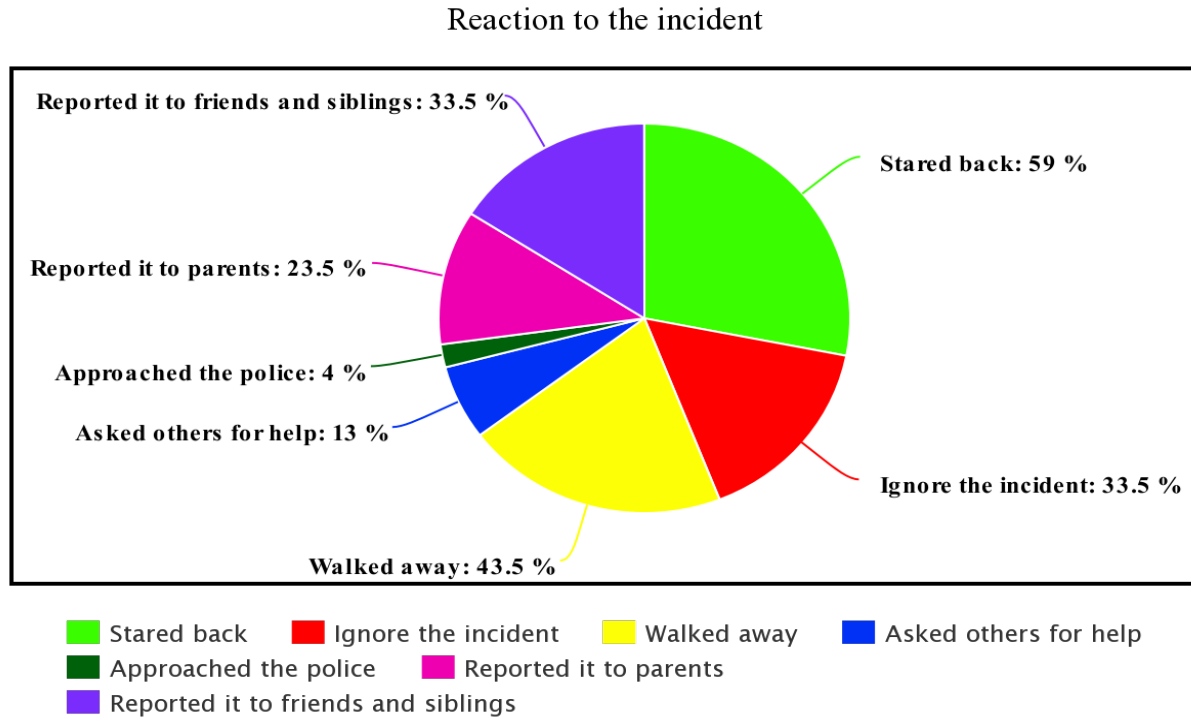
questions about your sex life

In the conducted study, from the above table, it becomes evident that within the chosen sample, a significant number of students have encountered various forms of sexual harassment while using public transport in Kerala. The results indicate that the most prevalent forms of harassment are staring, experienced by 68.5% (N=137) of participants, and inappropriate touching, faced by 47% (N=94) of participants. Subsequently, stalking is reported by 37% (n=74) of participants, and 29% (n=58) have dealt with attempts to trying to strike up a conversation with them. In contrast, the least common experiences are voyeurism and kissing, both at 1.5% (N=3).

This analysis firmly establishes that a substantial proportion of college students face verbal and physical sexual harassment during their public transport commutes in Kerala. These findings are congruent with studies conducted both within and beyond India. Valan's study in 2020, uncovered similar patterns of harassment, with inappropriate touching and stalking being prevalent forms of abuse. Another study by Gautam et al, 2019 found out that the majority (42.37%) of students were facing physical harassment, followed by verbal (14.40%) and non-verbal (43.22%) harassment. Additionally, Mosha et al.'s research in 2022 aligns with the present study, highlighting the prevalence of verbal and non-verbal forms of harassment. Specifically, names with sexual connotations were commonly reported, along with instances of unwanted touching and suggestive gestures.

In conclusion, this research underscores the alarming prevalence of sexual harassment among college students using public transport in Kerala. The study aligns with existing research, emphasizing the need for concerted efforts to address and combat such incidents effectively.

4.3 The kind of reaction given by college students who has faced sexual harassment at public transport.



The above pie chart in this study involving the selected sample of participants, it was observed that the majority of students (N=118, 59%) responded to the incidents by reciprocating with stares, indicating that this was the most common reaction. Conversely, a small proportion of students (N=8, 4%) chose to approach the police as their response. The findings also revealed that a significant number of students, approximately 43.5%, chose to walk away from the situation, while 33.5% chose to ignore the incident entirely.

These outcomes underscore a prevailing trend among college students in Kerala, where staring back seems to be a prevalent reaction. However, it is concerning to note that a considerable portion of students opt to walk away (43.5%) or ignore the incident (33.5%). Interestingly, the inclination to report incidents to the police remains notably low, in line with similar studies (Jagori, 2011).

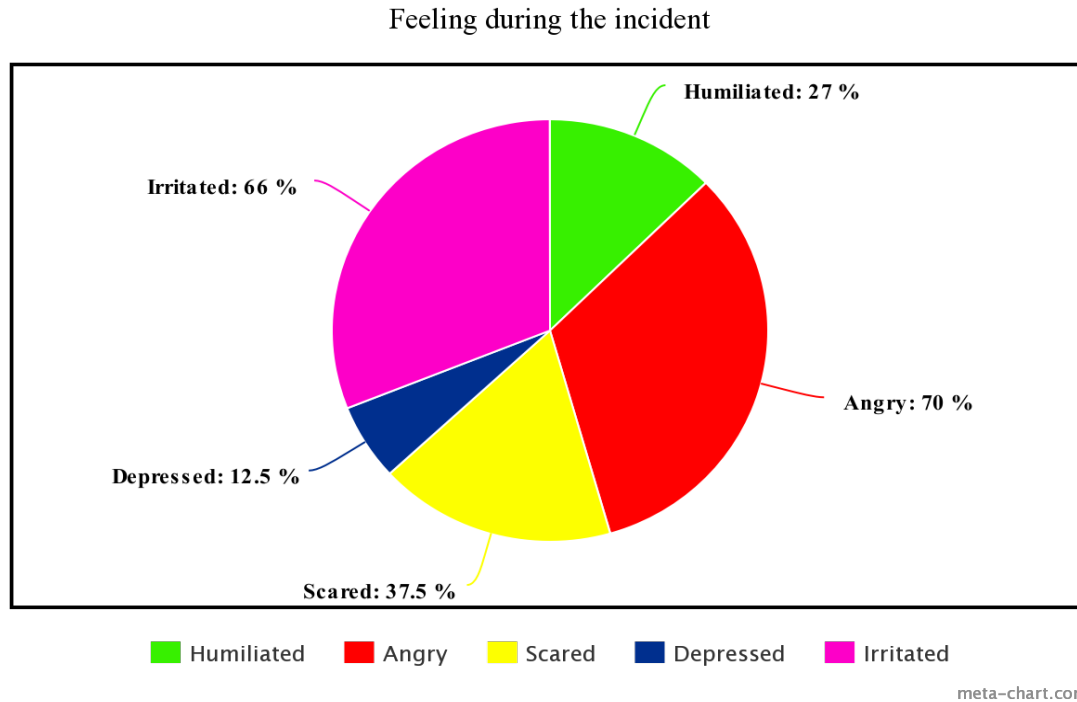
Comparatively, these findings align with a study conducted by Valan in 2020 in Chennai, where only a mere 6.5% of victims approached the police to file a formal complaint. Similar to the present study, Valan's research found that approximately 12% of respondents responded by staring back at the

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

offender, and a majority (55.4%) chose to walk away. Seeking help from co-passengers was a choice made by only 9.2% of the participants. Many other studies have also found that many cases of sexual harassment in public transport often go unreported. For example, (Mishra & Lamichhane, 2018) observed that 98% of all cases of sexual harassment of female students on public transport were not reported to the police. Similarly, a study in London (Transport for London, 2017) revealed that less than 10% of cases of sexual harassment in public transport in 2012- 2014 had been reported to the police.

In conclusion, the study highlights the common tendency among college students to respond to incidents by staring back, while also revealing a significant propensity to either walk away or ignore the incident. Additionally, the limited inclination to involve law enforcement aligns with prior research, suggesting that reporting incidents to the police remains uncommon in such situations. These findings contribute to the broader understanding of how college students react to instances of harassment on public transport, resonating with analogous research conducted in different geographical contexts.

4.4 The kind of feeling experienced by college students during the sexual harassment incident at the public transport.



The above pie chart in this study conducted among the selected sample, the findings reveal distinct emotional responses among college students who have encountered sexual harassment while using public transportation in Kerala. Out of the total sample size (N=140), the majority of students (70%) expressed feelings of anger following the incident. Conversely, the smallest proportion (12.5%, N=25) reported experiencing depression afterward.

These results highlight a notable trend: a significant portion of college students in Kerala react with anger and irritation when facing instances of sexual harassment in public transport settings. This observation contrasts with the relatively lower proportions of students feeling fear or depression in the aftermath of such incidents.

Comparisons can be drawn between the present study's outcomes and those of a similar research endeavor carried out by Valan in 2020 in Chennai. Valan's study discovered that around 70% of respondents expressed strong anger, while a similar percentage (73%) reported feelings of fear. Moreover, the findings indicated that roughly 61% experienced instant irritation, and a significant portion (44.6%) felt humiliation.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Evidently, the implications from these collective findings underscore the profound psychological impact of sexual harassment on young women. This impact is not confined to a single study or a particular region; rather, it is a shared experience that often leads to compromised mental well-being and constraints on daily activities due to an adverse environment.

4.5 Factors affecting sexual harassment at public transport

Variable	Response	Frequency	Percentage
Mode of transport	Bus	172	86
	Auto	56	28
	Train	59	29.5
	Metro	31	15.5
Overcrowded vehicle	Yes	142	71
	No	58	29
Time of travel	Morning	64	32
	Afternoon	34	17
	Evening	82	41
	Late at night	20	10

Based on the above tables of the present study, among the selected sample of college students, it was observed that a significant number had experienced sexual harassment while using various modes of public transportation. Notably, the highest number of instances occurred on buses (n=172), accounting for 86% of the cases, while the lowest number occurred on metros (n=31), constituting 15.5% of the cases.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Regarding the timing of these incidents, the findings indicated that the majority of college students faced sexual harassment during evening hours (n=82), amounting to 41% of the cases. On the other hand, the least number of incidents were reported during late at night (n=20), representing 10% of the cases.

The study also delved into the relationship between overcrowding and sexual harassment. It was observed that a substantial number of college students experienced harassment on overcrowded vehicles (n=142), comprising 71% of the cases. Comparatively, a smaller number of incidents were reported on non-overcrowded vehicles (n=58), accounting for 29% of the cases.

These findings are noteworthy when compared to existing research in the field. Valan's study in 2020 identified a correlation between time and sexual harassment, indicating a higher occurrence during rush hours when public transportation is crowded. Similarly, Mosha et al.'s research in 2022 highlighted the prevalence of harassment on public buses, especially when they were overcrowded. Gautam et al.'s study in 2019 echoed these trends, emphasizing the significance of buses and specific time periods as hotspots for such incidents.

In summary, the results of the present study underscore the prevalence of sexual harassment among college students using public transportation. The findings align with previous research, emphasizing the impact of timing and overcrowding on the occurrence of these incidents. This study contributes to the broader understanding of this issue and highlights the need for effective measures to ensure the safety and well-being of students during their commute.

4.6 Prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport

	Low	Average	High
Psychological well-being	1%	64.5%	34.5%

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

	Normal	Mild	Moderate	Severe	Extremely severe
Depression	27%	11.5%	28.5%	14.5%	15.5%
Anxiety	71%	12%	11%	5%	5%
Stress	95%	4%	5%		

In the current study, the prevalence of psychological well-being was assessed among the chosen sample. The results indicated that 1% of the sample reported lower psychological well-being, while 64.5% reported average psychological well-being, and 34.5% reported higher psychological well-being. Additionally, the prevalence of depression levels within the sample was examined. Of the chosen participants, 27% reported normal levels of depression, and the percentages for mild, moderate, severe, and extremely severe depression were 11.5%, 28.5%, 14.5%, and 15.5% respectively.

Similarly, the prevalence of anxiety levels was also explored, revealing that 71% of the chosen participants reported normal levels of anxiety. The percentages for mild, moderate, severe, and extremely severe anxiety were 12%, 11%, 5%, and 5% respectively. Furthermore, the study assessed stress levels, with 95% of the chosen participants reporting normal levels of stress. Mild and moderate stress levels were reported by 4% and 5% of the sample respectively.

While comparing the prevalence of depression, anxiety, stress, and psychological well-being among college students who have faced sexual harassment on public transport is challenging due to limited available research. However there are previous studies that has found out that sexual harassment can

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

have long-term negative effects on the mental, social and physical well-being of the individual (Gautam et al., 2019; Mamaru et al., 2015; Tripathi et al., 2017).

This research could be aligned with previous findings which states that sexual harassment can have long term negative implications on the overall wellbeing of the individual, contributing to reduced self-esteem, increased anxiety and long term depression (Tripathi et al., 2017). Various types of research reveal that the consequences of sexual harassment are diverse and serious, regardless of whether the focus of research is employees or students and staff in the higher education sector particularly. For instance, some researches show that ill health, anxiety, lack of motivation and dropout rates are results of sexual harassment (Barling et al., 1996; Chan et al., 2008). Experiences of sexual harassment in higher education led to physical, psychological and professional consequences for individuals. Examples of such consequences in literature are irritation, anger, stress, discomfort, feelings of powerlessness and degradation. It is well documented that sexual harassment in higher education can lead to depression (Martin-Storey & August, 2016; Selkie et al., 2015) nervousness (Richman et al., 1999) post-traumatic stress disorder (Henning et al., 2017), physical pain (Chan et al., 2008). These findings underscore the need for addressing sexual harassment to promote the overall well-being of individuals within educational environments.

4.7 The no of college students who has faced multiple sexual harassments at public transport

No of sexual harassment	Frequency of college students who has faced multiple no of sexual harassment at public transport
1	67
2	37
3	26
4	19
5	19

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

6	11
7	7
8	2
9	4
10	1
11	0
12	1
13	0
14	3
15	2
16	1
17	0
18	0

From the above table of the present study, within the selected sample, it was found that 67 college students experienced a singular form of sexual harassment. Strikingly, only one student reported encountering 16 distinct types of sexual harassment. Additionally, there were instances of 3 students facing 14 forms of harassment, and 2 students experiencing 15 types of sexual harassment each. Approximately 66.5% of the sample reported encountering multiple instances of sexual harassment.

It is essential to emphasize that the significance and impact of sexual harassment are deeply impactful, regardless of whether the individual has experienced one or multiple instances. Comparing these experiences is not appropriate given their inherent subjectivity. The tabulated data focuses on the number of college students who have faced various forms of sexual harassment in public transport.

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

While research on college students experiencing multiple instances of sexual harassment in public transport is notably limited, meaningful comparisons cannot be drawn. However, one relevant study conducted by Tabassum, S., & Suhail, K. (2022) explored sexual harassment on public transport in Rawalpindi, Pakistan. The findings revealed that women faced diverse forms of harassment, with 46% encountering it occasionally and 36% experiencing it frequently during their travels.

In summation, the study sheds light on the prevalence of different types of sexual harassment among college students in public transport. It underscores the importance of recognizing the profound impact of such experiences and highlights the necessity for further research in this area. The comparison between singular and multiple harassment experiences warrants careful consideration due to their inherently individual nature. The study's findings resonate with the broader pattern observed in prior research, such as the work by Tabassum and Suhail (2022), which underscores the global nature of this issue.

4.8 Table shows the themes and subthemes obtained by the researcher.

Theme	Sub-themes	Explanation	Quotes
Psychological Impact	Anxiety, Fear, Helplessness, Anger, Trauma	This theme captures the psychological toll experienced by victims, including emotional states such as fear, anxiety, and helplessness, as well as the traumatic nature of the incidents.	"During the victimization, I felt a mix of emotions, including shock, fear, disgust, and helplessness." "The incident had a profound impact on me both psychologically and physically. Psychologically, it caused me to feel anxious, hyper-vigilant, and watchful of traveling alone on public transport." "Psychologically, this incident had a significant impact on me. I felt disgusted and violated, experienced a mix of emotions such as anger, sadness, and vulnerability."

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Theme	Sub-themes	Explanation	Quotes
Physical Impact	Discomfort, Tension, Stress, Unease	This theme focuses on the physical responses victims experienced during and after the incidents, such as discomfort, muscle tension, and elevated stress levels.	"Physically, I experienced recurring nightmares, difficulty sleeping, and increased stress levels." "Physically, I felt a sense of discomfort and unease, as the incident had violated my personal boundaries." "Physically, this incident had a profound impact on me. I felt traumatized and developed a fear of traveling alone, especially late at night."
Immediate Reactions	Shock, Frozen, Confrontation, Seeking Help	This theme captures the victims' initial reactions during the incidents, including their shock and how they responded by confronting the harassers or seeking assistance.	"Initially, I was taken aback and felt frozen, not knowing how to respond. But as soon as I regained my self-control, I built up the courage to confront the harasser firmly." "When I realized the man's inappropriate behaviour, I immediately took action by turning around and slapping him. I wanted to assert my boundaries and make it clear that his actions were unacceptable."
Long-Term Impact	Duration, Recovery, Support, Sense of Security	This theme addresses the lasting effects of the incidents on victims, both in terms of their psychological recovery and the time it took to regain a sense of security.	"The physical and psychological impact of this incident lasted for several weeks. It took several weeks for me to gradually recover and regain a sense of emotional stability." "The psychological impact lasted much longer. It took several months for me to regain a sense of security while traveling on public transport." "The physical discomfort subsided after a few days, but the psychological impact lasted much longer. It took several months for me to regain a sense of security while traveling on public transport."

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Theme	Sub-themes	Explanation	Quotes
Expectations from Law and Government	Strict Regulations, Accountability, Surveillance, Awareness Campaigns	This theme revolves around victims' expectations for stronger actions from the law and government to prevent sexual harassment, including stricter regulations, increased surveillance, and awareness campaigns.	"I expect the law and government to take sexual harassment on public transport seriously and enforce strict regulations." "I believe it is crucial for the law and government to take strong actions to prevent sexual harassment on public transport. Some possible measures include strict implementation and enforcement of existing laws against sexual harassment." "Strengthening laws and regulations to ensure stricter penalties for perpetrators of sexual harassment, along with increasing awareness campaigns and education about gender sensitivity, consent, and respect for all individuals."

Theme 1: Psychological Impact

This theme highlights the profound psychological toll experienced by victims of sexual harassment while traveling on public transport. The sub-themes within this theme, including anxiety, fear, helplessness, anger, and trauma, reflect the range of emotions that victims undergo during and after the incidents. The victims describe feelings of shock, fear, and disgust, which are compounded by the violation of their personal space and dignity. The incidents leave them feeling vulnerable, violated, and deeply upset, and in some cases, even traumatized. These emotional responses are indicative of the deeply distressing nature of the experiences and the long-lasting impact they can have on a person's psyche.

The existing body of research underscores the profound and enduring impact of sexual harassment on individuals' overall well-being. Tripathi et al. (2017) highlighted that individuals subjected to

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

sexual harassment experience reduced self-esteem, heightened anxiety, and long-term depression. Similarly, Nishina and Juvonen (2005) found that both personally experienced and witnessed harassment led to increased daily anxiety, while the act of witnessing harassment mitigated feelings of humiliation on days when individuals themselves were harassed.

In the context of public spaces, the fear of sexual victimization holds considerable sway over women's lives globally. UN Women (2017) emphasized how the pervasive nature of sexual harassment and violence in public spaces hinders women's participation in education, work, and public activities, thus limiting their life prospects. Loukaitou-Sideris and Fink's study (2008) established that safety concerns significantly influence transit choices, indicating that fear of victimization can shape travel decisions.

Regarding students, Loukaitou-Sideris and Ceccato's work in 2021 unveiled a link between fears of sexual victimization and students' behavior and mobility, indicating that sexual harassment affects how students navigate their environment. Ford and Ivanic's study in 2020 illuminated a concerning association between organizational tolerance of sexual harassment and increased vulnerability to future victimization and harassment fatigue.

Victims of sexual harassment employ various communication strategies, such as coping mechanisms, to comprehend and respond to their experiences (Scarduzio et al., 2017). Women with a history of sexual victimization exhibited distinct emotional responses, including less anger and fewer anger-related words in reaction to unwanted advances, as compared to those without such a history (Jouriles et al., 2014).

Notably, the impact of sexual harassment extends to adolescents as well. Rhinehart's study in 2020 showed that increases in perpetration and victimization of sexual harassment and homophobic name-calling during adolescence correlated with higher rates of depression symptoms and substance use. Furthermore, certain forms of sexual harassment met the criteria for Post-Traumatic Stress Disorder.

Theme 2: Physical Impact

The physical impact of these incidents is also evident, as victims describe experiencing discomfort, tension, stress, and unease. These physical responses are a direct manifestation of the emotional distress caused by the incidents. The heightened stress levels and recurring nightmares reported by some victims highlight the physiological manifestations of the psychological trauma they endure. This theme underscores the interconnectedness of the mind and body in response to traumatic events.

There is very little rigorous evaluation of initiatives to reduce physical discomfort caused by incidents of sexual harassment and assault on public transport nationally and internationally. The physical discomfort experienced during instances of sexual harassment impact victims' physiological responses and emotional well-being. Thacker, 1996

Sexual harassment experiences are associated with negative outcomes such as decreased job satisfaction, lower organizational commitment, withdrawing from work, ill physical and mental health, and even symptoms of post-traumatic stress disorder. Willnes et al, 2007

Previous studies based on stress experienced by victims of sexual harassment on public transport affect their mental and physical health outcomes as well potential mechanisms through which stress resulting from harassment incidents can lead to long-term health consequences are extremely scant.

Experiences of sexual harassment can lead women to be fearful and restrict themselves to their homes. Junger, 1987

Previous studies based on victims manage the ongoing sense of unease and vulnerability stemming from previous incidents of harassment is extremely scant.

Theme 3: Immediate Reactions

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

The victims' immediate reactions during the incidents showcase a spectrum of responses. Some victims feel initially frozen, unsure of how to respond to the sudden violation of their personal space. However, many victims demonstrate resilience by confronting the harassers and seeking help from others or transportation staff. These reactions indicate a desire to assert boundaries and demand respect, even in the face of discomfort and shock.

Previous studies based on shock, frozen, confrontation and seeking help of college students who has faced incidents of sexual harassment at public transport is extremely, so comparison findings could not be made.

Theme 4: Long-Term Impact

This theme emphasizes the enduring impact of the incidents on victims' lives. The psychological and physical effects can last for weeks, months, or even longer. Victims struggle to regain a sense of security while traveling and report on-going emotional distress. The impact can affect their overall well-being, contributing to heightened anxiety and difficulty sleeping. The need for a supportive network, counseling, and time to heal becomes evident, highlighting the importance of addressing these issues in a comprehensive manner.

Previous studies based on long term impact of sexual harassment at public transport which includes duration, Recovery, Support and Sense of Security is extremely scant.

Theme 5: Expectations from Law and Government

Victims express clear expectations from the law and government to prevent sexual harassment on public transport. They call for stricter regulations, greater accountability for perpetrators, increased surveillance, and effective awareness campaigns. These suggestions highlight the need for comprehensive strategies that address both prevention and response. The victims' insights underscore

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

the importance of a multi-pronged approach involving legal measures, improved transportation infrastructure, and educational initiatives to create safer travel environments.

In summary, the qualitative analysis of the provided data reveals the multifaceted impact of sexual harassment on victims' psychological and physical well-being. The incidents evoke a range of emotions, from shock and fear to helplessness and anger, leaving victims with lasting trauma. The immediate reactions demonstrate victims' resilience in confronting the harassers and seeking assistance. The long-term impact underscores the need for support and healing, while the expectations from law and government highlight the urgent need for systemic changes to prevent such incidents and provide a safer environment for all travellers.

CHAPTER – 5

SUMMARY AND CONCLUSION

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

The findings and study's conclusion are both summarized in the current chapter. The study's shortcomings and implications are also included in this chapter. The study tried to understand the psychological characteristics of college students who have faced sexual harassment at public transport in Kerala. The major objectives of the study were -

- To understand the type of sexual harassment faced by college students at public transport.
- To understand the kind of reaction by college students who has faced sexual harassment at public transport.
- To understand the kind of feeling experienced by college students during the sexual harassment incident at the public transport.
- To understand the factors affecting sexual harassment at public transport.
- To understand the prevalence of Depression, Anxiety, Stress and Psychological well-being among college students who has faced sexual harassment at public transport.
- To describe the no of sexual harassments faced by college students at public transport.

The current study have a sample of 210 college students between the age ranges of 18-30 were taken for the study, in which 200 student's data was collected quantitatively through a Google form and 10 students data was collected qualitatively through semi-structured telephone interview. Convenience sampling was used for collecting the sample. The present study contains two inventories and two questionnaires for the data collection procedure, which includes Depression, Anxiety and Stress Scale (DASS-21) by Lovibond, S.H. & Lovibond, P.F, (1995), Psychological Wellbeing Scale by Ryff, C.D & Keyes, C.L.M (1995), Semi-structured questionnaire based on sexual harassment at public transport based on studies of Valan, 2020 and Mosha et al, 2022 and Semi-structured questionnaire based on sexual harassment at public transport for telephone interview.

5.1 Major findings and conclusions

- The results indicate that the most prevalent forms of sexual harassment are staring,

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

experienced by 68.5% (N=137) of participants, and inappropriate touching, faced by 47% (N=94) of participants. Subsequently, stalking is reported by 37% (n=74) of participants, and 29% (n=58) have dealt with attempts to trying to strike up a conversation with them. In contrast, the least common experiences are voyeurism and kissing, both at 1.5% (N=3).

- The pie chart in this study involving the selected sample of participants, it was observed that the majority of students (N=118, 59%) responded to the incidents by reciprocating with stares, indicating that this was the most common reaction. Conversely, a small proportion of students (N=8, 4%) chose to approach the police as their response. The findings also revealed that a significant number of students, approximately 43.5%, chose to walk away from the situation, while 33.5% chose to ignore the incident entirely.
- The pie chart in this study conducted among the selected sample, the findings reveal distinct emotional responses among college students who have encountered sexual harassment while using public transportation in Kerala. Out of the total sample size (N=140), the majority of students (70%) expressed feelings of anger following the incident. Conversely, the smallest proportion (12.5%, N=25) reported experiencing depression afterward.
- Among the chosen sample, maximum no of college students had faced sexual harassment at bus (n=172), 86% and least no of college students has faced sexual harassment at metro (n=31), 15.5%; and maximum no of college students had faced sexual harassment during evening hours (n=82), 41% and least no of college students has faced sexual harassment during late at night (n=20), 10%; furthermore maximum no of college students had faced sexual harassment at an overcrowded vehicle (n=142), 71% and least no of college students has faced sexual harassment at a non-overcrowded vehicle (n=58), 29%.
- In the current study, the prevalence of lower psychological well-being among the chosen sample is 1%, average psychological well-being is 64.5% and higher psychological well-being is 34.5% respectively. The prevalence of normal levels of depression is 27% of the

chosen sample and the prevalence of mild, moderate, severe and extremely severe levels of depression in the chosen sample are 11.5%, 28.5%, 14.5% and 15.5% respectively. Similarly the prevalence of normal levels of anxiety is 71% of the chosen sample and the prevalence of mild, moderate, severe and extremely severe levels of anxiety in the chosen sample are 12%, 11%, 5% and 5% respectively. Finally the prevalence of normal levels of stress is 95% of the chosen sample and the prevalence of mild and moderate, levels of stress in the chosen sample are 4% and 5% respectively.

- From the chosen sample, 67 no of college students have faced only one type of sexual harassment, whereas only one student has faced 16 types of sexual harassment, also there are 3 students who have faced 14 types of sexual harassment and 2 students who have faced 15 types of sexual harassment respectively. Around 66.5% of the sample has faced multiple no of sexual harassment.
- The qualitative analysis of the provided data reveals the multifaceted impact of sexual harassment on victims' psychological and physical well-being.

5.2 Implications of the study

This research underscores the alarming prevalence of sexual harassment among college students using public transport in Kerala. The study aligns with existing research, emphasizing the need for concerted efforts to address and combat such incidents effectively.

The study highlights the common tendency among college students to respond to incidents by staring back, while also revealing a significant propensity to either walk away or ignore the incident. Additionally, the limited inclination to involve law enforcement aligns with prior research, suggesting that reporting incidents to the police remains uncommon in such situations. These findings contribute to the broader understanding of how college students react to instances of

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

harassment on public transport, resonating with analogous research conducted in different geographical contexts.

Evidently, the implications from these collective findings underscore the profound psychological impact of sexual harassment on young women. This impact is not confined to a single study or a particular region; rather, it is a shared experience that often leads to compromised mental well-being and constraints on daily activities due to an adverse environment.

It is essential to emphasize that the significance and impact of sexual harassment are deeply impactful, regardless of whether the individual has experienced one or multiple instances. Comparing these experiences is not appropriate given their inherent subjectivity. The tabulated data focuses on the number of college students who have faced various forms of sexual harassment in public transport. These findings underscore the need for addressing sexual harassment to promote the overall well-being of individuals within educational environments.

In summary, the results of the present study underscore the prevalence of sexual harassment among college students using public transportation. The findings align with previous research, emphasizing the impact of timing and overcrowding on the occurrence of these incidents. This study contributes to the broader understanding of this issue and highlights the need for effective measures to ensure the safety and well-being of students during their commute.

The qualitative data implies incidents evoke a range of emotions, from shock and fear to helplessness and anger, leaving victims with lasting trauma. The immediate reactions demonstrate victims' resilience in confronting the harassers and seeking assistance. The long-term impact underscores the need for support, counselling and healing, while the expectations from law and government highlight the urgent need for systemic changes to prevent such incidents and provide a safer environment for all travellers. The field of counselling psychology has a major role in this process. By this research, it

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

is understood that counselling people who has faced sexual harassment is a very important process. The counselling psychologist can bring a change by providing enough input to this field.

5.3 Limitations of the study

This data is quite unique as well as complex in nature, so the complexity could be reduced by grouping the types of sexual harassment.

Exact scales to measure the psychological impact of sexual harassment faced by college students weren't available.

5.4 Suggestions for further research

More representations of sample across the state could be collected so that research would be highly valid if it is done using more samples.

Maintaining the gender ratio, a wide scope of the study can be developed.

Instead of convenient sampling, more representative sampling methods could be used.

Further scope of standardized scale development based on sexual harassment at public transport so that higher inferential statistics could be used.

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CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

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APPENDIXES

Hello,

I'm Noopura S; pursuing Master's in Counselling Psychology and has undertaken a Research study as a part of my dissertation under the guidance of Dr Ammu Lukose, Department of Counselling Psychology at Loyola College of Social Sciences, Trivandrum. As a participant, you are required to respond as per the instructions given before the statements. It would take approximately about 15-20 minutes to complete the given questionnaires. I will be very grateful for your keen participation in my study.

Topic: Psychological characteristics of college students who have faced sexual harassment on public transport in Kerala-A mixed method study.

Purpose of the Study – To understand the psychological impact in terms of depression, anxiety, stress and well-being of college students who has faced any forms of sexual harassment while commuting using public transport.

Please read the following information carefully.

Eligibility Requirements: Participants must be college going students aged between 18-30 as required for the study. Participants who have faced any forms of sexual harassment while using public transport (bus, auto rickshaw, train or metro) are only included.

INFORMED CONSENT:

If you wish to participate in the study, the researcher will ask you for your personal information. You need not worry about your personal information or your identity. The information gathered will be strictly in the hands of the researcher. Your responses will be strictly kept confidential to be used for the research study and no personal information will be divulged anywhere.

Remember that your participation in this study is voluntary and you are free to withdraw from the study at any time. I would be glad if you could participate in this study by giving your valuable time.

Thank you.

Have you faced any kinds of sexual harassment while travelling in the past one year?

Example:- Someone- giving you compliments of a sexual nature, whistling at you, dirty jokes, asking personal questions about your sex life, showing you offensive/sexual pictures on a phone, kissing you, standing behind or in front of you and inappropriately brushing their body against yours, Inappropriate touching, Stalking, Trying to strike up a conversation, Staring, Asking for sexual favours, Inappropriate comments on the body or attire, Voyeurism, Groping, Howling, smacking lips and sexual flashing etc..

- Yes
- No

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

PERSONAL DATA SHEET

Name

Age

- 18-20
- 20-22
- 22-25
- 25-30

Gender

- Female
- Male
- Transgender

Educational qualifications

- Undergraduate
- Post-graduate
- MPhil
- PHD

Nativity

- Urban
- Semi-urban
- Rural

Economic status

- High income
- Middle income
- Low income

Marital status

- Married
- Un-married

SEMI-STRUCTURED QUESTIONNAIRE BASED ON SEXUAL HARASSMENT AT PUBLIC TRANSPORT

Types of sexual harassment faced-

- Inappropriate touching

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

- Stalking
- Trying to strike up a conversation
- Staring
- Asking for sexual favours
- Passing lewd comments
- Inappropriate comments on the body or attire
- Flashing
- Groping
- Howling, smacking lips
- Voyeurism
- Someone kissing you
- Someone standing behind or in front of you and inappropriately brushing their body against yours
- Someone giving you compliments of a sexual nature
- Someone whistling at you
- Someone telling you jokes of a sexual nature
- Someone calling you names such as baby, sweetie, and love
- Someone asking personal questions about your sex life

How did you feel during the incident?

- Humiliated
- Angry
- Scared
- Depressed
- Irritated

Your reaction to the incident-

- Stared back
- Ignored the incident
- Walked away
- Asked others for help
- Approached the police
- Reported it to parents
- Reported it to friends and siblings

Mode of travel

- Bus
- Auto
- Train
- Metro

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

Overcrowded vehicle

- Yes
- No

Time of travel

- Morning
- Afternoon
- Evening
- Late at night

DASS-21 ITEMS SCALE

Please read each statement carefully and tick mark the number 0, 1, 2 or 3 which indicates how much the statement applied to you. There are no right or wrong answers. Do not spend too much time on any statement.

Sl. no.	Items	Never (0)	Sometimes (1)	Often (2)	Almost always (3)
1	I found it hard to wind down				
2	I was aware of dryness of my mouth				
3	I couldn't seem to experience any positive feeling at all				
4	I experienced breathing difficulty (for example, excessively rapid breathing, breathlessness in the absence of physical exertion)				
5	I found it difficult to work up the initiative to do things				

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

6	I tended to over-react to situations				
7	I experienced trembling (for example, in the hands)				
8	I felt that I was using a lot of nervous energy				
9	I was worried about situations in which I might panic and make a fool of myself				
10	I felt that I had nothing to look forward to				
11	I found myself getting agitated				
12	I found it difficult to relax				
13	I felt down-hearted and blue				
14	I was intolerant of anything that kept me from getting on with what I was doing				
15	I felt I was close to panic				
16	I was unable to become enthusiastic about anything				
17	I felt I wasn't worth much as a person				
18	I felt that I was rather touchy				
19	I was aware of the action of my heart in the absence of physical exertion (for example, sense of heart rate increase, heart missing				

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

	a beat)				
20	I felt scared without any good reason				
21	I felt that life was meaningless				

PSYCHOLOGICAL WELLBEING SCALE 18-ITEMS

Each statement contains six subscales which are autonomy, the environmental mastery, the personal growth, the positive relations with others, the purpose in life subscale and Self-Acceptance subscale. Mark the responses below each statement to indicate how much you agree or disagree.

Sl. no.	Items	Strongly agree (1)	Somewhat agree (2)	little agree (3)	Neither agree or disagreed (4)	Little disagreed (5)	Some what disagreed (6)	Strongly disagreed (7)
1	I like most parts of my personality							
2	When I look at the story my life, I am pleased with how things have turned out so far							
3	Some people wander aimlessly through life, but I am not one of							

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

	them							
4	The demands of everyday life often get me down							
5	In many ways I feel disappointed about my achievements in life							
6	Maintaining close relationships has been difficult and frustrating for me							
7	I live life one day at a time and don't really think about the future							
8	In general, I feel I am in charge of the situation in which I live							
9	I am good at managing the responsibilities of daily life							
10	I sometimes feel as if I've							

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

	done all there is to do in life							
11	For me, life has been a continuous process of learning, changing, and growth							
12	I think it is important to have new experiences that challenge how I think about myself and the world							
13	People would describe me as a giving person, willing to share my time with others							
14	I gave up trying to make big improvements or changes in my life a long time ago							
15	I tend to be influenced by people with strong							

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

	opinions							
16	I have not experienced many warm and trusting relationships with others							
17	I have confidence in my own opinions, even if they are different from the way most other people think							
18	I judge myself by what I think is important , not by the values of what others think is important							

CHARACTERISTICS OF SEXUAL HARASSMENT IN PUBLIC TRANSPORT

SEMI-STRUCTURED QUESTIONNAIRE BASED ON SEXUAL HARASSMENT AT PUBLIC TRANSPORT FOR TELEPHONE INTERVIEW-

1. May I know where you are from and your age?
2. Can you describe a specific instance of sexual harassment you faced while traveling on public transport as a college student in the past year?
3. How did you feel during the incident?
4. What was your reaction to the incident?
5. How did this incident impact you psychologically and physically afterward?
6. Can you describe how long the physical and psychological impact lasted for you?
7. What actions do you expect from the law and government to prevent sexual harassment while traveling on public transport? Do you have any suggestions?