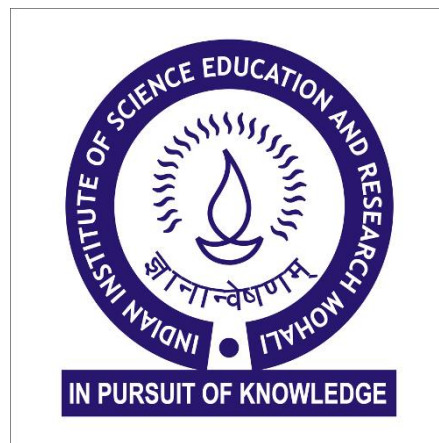


# **The Landscape of Outsourced Labor in IISERMohali: The Case of Housekeeping Staff**

**Aiswarya.M.S**

**MS13018**

*A dissertation submitted for the partial fulfilment of BS-MS dual  
degree in Science*



**Indian Institute of Science Education and Research, Mohali**

**November 29, 2018**

*Dedicated to all the contract labourers of IISER Mohali*



## **Certificate of Examination**

This is to certify that the dissertation titled "The Landscape of Outsourced Labour in IISERMohali: The Case of Housekeeping Staff" submitted by Ms Aiswarya M.S(Reg. No. MS13018), for the partial fulfillment of BS-MS dual degree programme of the Institute, has been examined by the thesis committee duly appointed by the Institute. The committee finds the work done by the candidate satisfactory and recommends that the report is accepted.

Dr. Adrene Freeda D'cruz

Dr. V.Rajesh

Dr.Ritajyoti Bandyopadhyay(Supervisor)

**Dated: November 29,2018**

# Declaration

I, Aiswarya M.S, do hereby declare that the dissertation titled "The Landscape of Outsourced Labour in IISERMohali: The Case of Housekeeping Staff" has been undertaken by me for the award of the BS-MS dual degree of Indian Institute of Science Education and Research, Mohali. I have completed this work under the guidance of Dr. Ritajyoti Bandyopadhyay at the institute. I also declare that this work has not been submitted in part or in full for a degree, a diploma or a fellowship to any other university or institute. This thesis is a bonafide record of original work done by me and all sources listed within have been detailed in the bibliography.

Aiswarya.M.S

MS13018

Dated: November 29, 2018

In my capacity as the supervisor of the candidate's project work, I certify that the above statements by the candidate are true to the best of my knowledge.

Dr. Ritajyoti Bandyopadhyay(Supervisor)



## **Acknowledgment**

I would like to express my sincere gratitude to my thesis supervisor Dr. Ritajyoti Bandyopadhyay for his immense support and guidance throughout my thesis. I am also indebted to Satnam, Shikha, Kiran, Jasleen, Nisha, Sumit, and Satyam who helped me in the survey and also to Arsha, Basil and Ajith for their valuable instructions and suggestions. Without their help, my data collection and interpretations would have remained incomplete. I would like to express my deep gratitude to Mukesh Kumar, Devrat Dube, Amol Amodker, Brijesh(caretaker, H7), Tejinder Chechi, Rajiv( Civil engineer, IISERM), Dr.NG.Prasad and all the housekeeping staff of IISERM for their help and kind co-operation. I would also like to thank the experts who were involved in the examination and validation of my thesis, Dr. Adrene Freeda D’cruz and Dr.V.Rajesh for their valuable inputs. I am greatly thankful to my Achan and Amma, Grandma, Eattan, other family members, and friends for their constant support and encouragement. Finally, I would like to offer my special thanks to Geethu, Kochu, Thressy, Prashanth, Vandana, S.Singh, Lord Iyyappa and Krishna(not the deities), AmJO , Unni and Sujeesh for always being there through thick and thin.





# CONTENTS

**ABSTRACT.....11**

**INTRODUCTION.....11**

**CHAPTER 1.....14**

**ABrief Study of Housekeeping Contract System in IISERMohali**

1.1.Contract labour in IISER Mohali.....14

1.2 .Critical analysis of housekeeping tender notice .....15

**CHAPTER 2.....20**

**Assessing the Quality of Life of Female House Keeping Staffs in IISERMohali**

2.1. Quality of life and its measurement.....20

2.2. WHOQOL-Bref: Structure, Significance and Scoring.....21

2.3. Survey.....26

2.4. Data analysis and inference.....66

2.5. Other general inferences.....71

2.6. Narrations .....73

2.7. Limitations of the study.....74

**Conclusion.....75**

**Bibliography** .....76

## List of tables

1.1 Housekeeping tender notice- comparison between documented and reality .....17

2.1 Domain and facets incorporated in each domain-WHOQOL-Bref.....22

2.2 Method for converting raw scores to transformed scores.....24

2.3 Participant scores in four domains.....25

2.4 Facets and and scores.....46

## **ABSTRACT**

An investigative study on the housekeeping contract system of IISER Mohali reveals that the housekeeping service provider in IISERM is evidently violating labour laws and is not following all the terms and conditions given in the contract agreement. The authority, as it has sensed the discrepancies in the functioning of the system, is trying to bring about practical changes in the upcoming contract which will begin by December 2018.

Quality of life measurement of female housekeeping staff of IISERM using WHOQOL-Bref shows that the people of this community are relatively more satisfied in their physical health and social relationships. In the domains of psychological health and the environment, their position is comparatively lower. Variations in percentage domain scores obtained by different subgroups suggest that socio-demographic characteristics such as nativity, religion, caste, economic status, age, and education have influence on the quality of life of people.

## **INTRODUCTION**

The world now is changing in an unimaginably rapid pace. Industrial revolution and the resultant advancements in the fields of science and technology have made our lives faster and comfortable. Better standard of living concerning basic requirements like food, water, clothing, shelter and health services have contributed positively to the world's population growth rate. By 2050, the human population is expected to reach eight billion. India hosts around 27% of the total world population(1). The country's economy is broadly rooted in three sectors-agriculture, industry and services(2). Contributions of the working class in the growth and stabilization of these sectors are indisputable. Thus to get access to a country's social, political, cultural and economic dynamics, one has to study the working class structure and various labour related issues. The working class which could be defined as those section of people, who sell their skills for wages, both physical and inherent forms of skills, forms around one-third of the country's total population. This group of people can be broadly classified under organized and unorganized sectors. The latter includes labourers in agriculture, fishermen, beedi industry workers, stitchers in the garment industry, construction workers, scavengers, footpath vendors, sweepers, rikshaw

pullers, housekeepers etc. (3)(4). These workers who try to earn their daily bread from whatever little assets and skills they possess could be identified as the most distressed in the present society. They often don't receive minimum wages or other perks which are entitled by the law and struggle to cope up with inflation of essential commodities. Organized sector workers, those who are more unionized, often get their grievances considered by the authority. And even though there are labour laws and acts for protection of rights of the unorganized, usually those are violated, because these weaker sections cannot withstand a long-term fight with their employees, either in fear of dismissal or as they are less influential, undereducated and not unionized. In many parts of the country women are being exploited for mostly they are less aware of their rights. Especially in rural areas, often they do not raise a voice as many other unemployed women are ready for the same work even at lower wages than what they receive. In India, 21% of the people are extremely poor (Below poverty line) and 86% work in the unorganized sector(4). Both these figures point to the fact that there is a high demand for all sorts of labours in this country. It also defines why these sections are exploited by the bourgeois. Neoliberal economic policies adopted by the government and the waves of globalization have raised the miseries of the working class. As a person who cares for the welfare of marginalized and deprived sections of the society, I think these issues related to the working class have to be addressed with utmost importance and has to be brought to the limelight. Being a student of IISER Mohali, the best option in front of me which would allow me to have a little understanding about the ground realities in this area, was to look into the lives of outsourced workers in the campus. This topic was thus chosen for the final year project and was later narrowed down to the lives of female housekeeping staffs, as females were the majority in this department and also I had personal interest for these cleaning 'Aunties' of the hostels who were a part of our day to day life in IISER. In the first part of my work, I'm trying to find out whether the contractor is abiding by all the labour laws and the terms written in the tender document. In August 2018, I visited a few households of the female workers, to know more about their lives outside the campus, in the village of Kambala. Due to time and language constraints, I couldn't go for exclusively qualitative research. And for doing a quantitative study, I needed parameters and a validated protocol. A detailed background work led me to quality of life(QOL) related studies and thus I came to know about WHOQOL-Bref, the method designed by the World

Health Organization for QOL measurement. In the second part of my project, I have administered WHOQOL-Bref to measure QOL of female housekeeping staff. In the chapters to follow, I will be discussing my work in detail.

# CHAPTER 1

## A Brief Study of Housekeeping Contract System in IISER Mohali

### 1.1 Contract labour in IISER Mohali

In IISER there are about 342 contract workers working in administrative works, horticulture department, housekeeping department, as pump operators and in IWD. About one-fourth (approximately 85 workers) of total contract labourers in the campus are constituted by ‘unskilled’ (this is how they are categorized in administrative documents) housekeeping staff. These workers, who belong to the bottom-most level of payment based job hierarchy, are an unavoidable part of IISER community. Here, I am trying to record the problems in their work life which were earlier pointed out by some of the student activists and faculty members. Data collection is done by interviewing different people on the campus who were directly involved in various issues related to this sphere.

The definition for contract labour according to the Contract Labor (Abolition and Regulation) Act of 1970, is as follows: a workman is considered to be employed as a contract labourer in or in relation with the work of an establishment if he is hired for such work-

- By or through a contractor
- With or without the knowledge of the principal employer. (5)

The structure of the contract system in IISERM, as per the definition given above is schematically represented here. ( Figure 1.1)

## Contract system in IISER

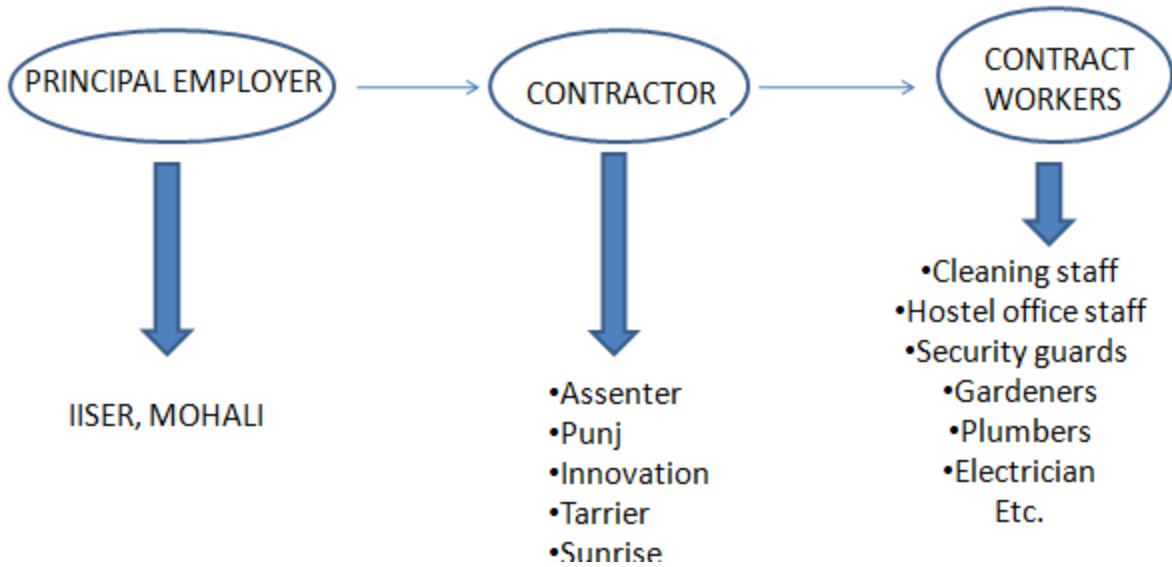


Figure 1.1

## 1.2 Critical analysis of housekeeping tender notice

Given below are the statements taken from the tender notice for cleaning, housekeeping and horticulture services which was published on 18<sup>th</sup> April 2017.

The bidder shall ensure that all the workforce deployed wear uniform while on duty.

A consolidated per month amount may be quoted. The bidder is responsible for meeting all statutory requirements and IISER MOHALI shall not hold any responsibility.

### Workforce:

- i) A minimum of 1.5 persons per level (per floor) of the hostel are required. The bidder must employ adult and suitable labour only. Only women staff will be employed to work in areas of hostel where girl students stay. Employment of child labour will lead to the termination of the contract. Prior to employment on IISER Mohali hostel site, for every worker, the successful

## H. SUPPLY OF MATERIAL AND CONSUMABLES:

All materials/consumables other related item is to be provided by the Agency has to be of ISI marked or in conformity with the specification/makes keeping in view good quality/standard after discussion and finalization with Officer-In-Charge. The firm shall assess the quantity of consumables to be used and supply them in advance and store them at IISER MOHALI on fortnightly basis. The stores are to Cleaning of attached toilets with phenol, removing all dust and unwanted materials, keeping dry, cleaning of window sills once in a day. Naphthalene balls air purifier; toilet rolls/paper rolls and liquid soap are to be provided by the agency regularly to ensure continuous availability of these materials in requisite place/container.

I/We hereby undertake to provide the housekeeping services as per the provisions in the tender document/contract agreement.

10. I/We abide by the provision of Minimum Wages Act, Contract Labour Act and other statutory provision like EPF, ESI, Leave, Relieving Charges, Uniform and Allowance thereof and any other charges applicable from time to time. All the cleaning personnel provided for housekeeping services shall be paid Minimum wages as per Government of India/Central Labour Commissioner, EPF, ESI and all statutory recovery & remittance shall be taken care by me/us.

11. I/We shall provide trained sanitation/housekeeping staff. No worker less than 18 years of age will be deployed by me.

Figure 1.2

What is written in the tender notice	What actually happened till November 2018
<ul style="list-style-type: none"> <li>▶ Uniforms should be provided</li> <li>▶ Minimum of 1.5 person per level have to be appointed</li> <li>▶ The quality/standard of all materials provided by the agency should be checked</li> <li>▶ Providing and refilling liquid soaps and toilet rolls</li> <li>▶ Making payments as per minimum wages as notified by Govt. of India, Labor Ministry</li> <li>▶ Making payments of all statutory benefits- ESI</li> </ul>	<ul style="list-style-type: none"> <li>▶ No uniforms provided</li> <li>▶ 1 worker for two levels</li> <li>▶ The quality or standard checking not done</li> <li>▶ liquid soaps or toilet rolls not adequately provided</li> <li>▶ Minimum wage is paid as per Area C</li> <li>▶ Not all workers are</li> </ul>



	registered under ESI scheme
--	-----------------------------

Table 1.1

This comparison (Table 1.1) shows that there exists a great contradiction between what is written and what actually is practiced in the case of the housekeeping contract. Our institute comes under Mohali region for which minimum wage is less than that of Chandigarh. But as per law, since the institute comes within 15 km radius of Chandigarh Municipal Corporation, it allows implementing that minimum wage which is the highest. So the workers are supposed to get the minimum wage of Area B (Figure 1.4). But so far they were paid the minimum wage of 'Area C'. And also the minimum wages are revised every six months (figure 1.3) but this often violated when their payments are made. As per Contract labor act of 1970 workers have to be provided with restrooms and subsidized canteen(5). This rule is also not followed in our campus. Among the unskilled laborers, many are interstate migrants belonging to the states of UP, Haryana, Rajasthan etc. There are separate rules for the protection of their rights which are included in the Interstate migrant workmen act of 1976. According to this act, all migrant workers are to be provided with displacement allowance, journey allowance, proper accommodation, and free medical care. These rules as others mentioned above are not implemented. The ESI act of 1948 is another important law which entitles the workers and their family to get health insurance at the ESI hospitals. In IISER not all workers are registered under this scheme. Because of this during the past several years, the workers couldn't avail any benefit of the ESI scheme. There are two cleaning ladies who had to get maternity benefits, but as they didn't have ESI cards, they couldn't get any aid from this government scheme. Once when a working woman got injured due to acid spilling into her eyes, she took treatment in a private hospital costing her around Rs.1.5 lakh. For her family couldn't afford this much amount, students had helped her by raising some fund. There were also cases of workers being fired without any notification. In 2017 ten workers were fired like this and were later taken back.

The housekeeping and horticulture department says that from December 2018 onwards all the above-mentioned problems will be solved, as they have recognized that the contract agreements are not followed by the current firm. The department also stated that a committee is formed to check the quality of materials provided or used by the service providers. We can hope that in future if the terms and conditions mentioned in the contract agreement won't just remain on papers, positive changes will happen that will ensure a better work life for the housekeeping staff.

**RATES OF V.D.A.FOR EMPLOYEES EMPLOYED IN “Employment of Sweeping and Cleaning excluding activities prohibited under the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993”.**

AREA	RATES OF V.D.A. PER DAY (in Rs.)
A	35
B	29
C	23

Therefore, the minimum rates of wages showing the basic rates and Variable Dearness Allowance payable w.e.f 01.10.2018 would be as under:-

AREA	RATES OF WAGES PLUS V.D.A PER DAY			Total (Rs.)
	Basic Wages (Rs.)		V.D.A (Rs.)	
A	523	+	35	= 558
B	437	+	29	= 466
C	350	+	23	= 373

Figure 1.3

(Rivised minimum wages,Chief labour commissioner’s official website )

### CLASSIFICATION OF AREA

AREA - "A"					
Ahmedabad	(UA)	Hyderabad	(UA)	Faridabad complex	
Bangaluru	(UA)	Kanpur	(UA)	Ghaziabad	
Kolkata	(UA)	Lucknow	(UA)	Gurgaon	
Delhi	(UA)	Chennai	(UA)	Noida	
Greater Mumbai	(UA)	Nagpur	(UA)	Secunderabad	
Navi Mumbai			(UA)		
AREA - "B"					
Agra	(UA)	Gwalior	(UA)	Port Blair	(UA)
Ajmer	(UA)	Hubli-Dharwad	(M. Corpn)	Puducherry	(UA)
Aligarh	(UA)	Indore	(UA)	Raipur	(UA)
Allahabad	(UA)	Jabalpur	(UA)	Raurkela	(UA)
Amravati	(M. Corpn)	Jaipur	(M. Corpn)	Rajkot	(UA)
Amritsar	(UA)	Jalandhar	(UA)	Ranchi	(UA)
Asansol	(UA)	Jalandhar-Cantt.	(UA)	Saharanpur	(M. Corpn)
Aurangabad	(UA)	Jammu	(UA)	Salem	(UA)
Bareilly	(UA)	Jamnagar	(UA)	Sangli	(UA)
Belgaum	(UA)	Jamshedpur	(UA)	Shillong	
Bhavnagar	(UA)	Jhansi	(UA)	Siliguri	(UA)
Bhiwandi	(UA)	Jodhpur	(UA)	Solapur	(M. Corpn)
Bhopal	(UA)	Kannur	(UA)	Srinagar	(UA)
Bhubaneshwar	(UA)	Kochi	(UA)	Surat	(UA)
Bikaner	(M. Corpn)	Kolhapur	(UA)	Thiruvananthapuram	(UA)
Chandigarh	(UA)	Kollam	(UA)	Thrissur	(UA)
Coimbatore	(UA)	Kota	(M. Corpn)	Tiruchirappalli	(UA)
Cuttack	(UA)	Kozhikode	(UA)	Tiruppur	(UA)
Dehradun	(UA)	Ludhiana	(M. Corpn)	Ujjain	(M. Corpn)
		Madurai	(UA)	Vadodara	(UA)

Figure 1.4

(Area wise classification, Central government notification on minimum wage)

## **CHAPTER 2**

# **Assessing Quality of Life of female housekeeping staff in IISERMohali using WHOQOL-Bref**

### **2.1 Quality of life and its measurement**

Quality of life (QOL) is a concept which has no universally accepted definition (7). It is understood as a subjective and dynamic quality which varies from one culture to other(10). According to the definition given by World Health Organization, quality of life is a person's perception about her/ his position in life with respect to the culture and evaluative system in which they live and the goals, expectations, standards, and priorities that they have. (9) WHOQOL-Bref is a cross-culturally validated QOL assessment tool developed by WHO in 1996(9) and is shown to be widely used in QOL related surveys since 2004. It is based on the idea that QOL is distributed among four broad domains, the domains being physical health, psychological health, social relationships, and environment. A one-month-long survey starting from the second week of September 2018 to second week of October 2018 was carried out inside IISERM campus among 41 female housekeeping staff using WHOQOL-Bref questionnaire. Twenty-four questions, each belonging to one of the four domains and addressing a particular aspect of that domain, were asked to the participants. Their answers are scored using scoring methods provided in the WHOQOL-Bref questionnaire and graphs are plotted using excel.

## 2.2 WHOQOL-Bref: Structure, Significance and Scoring

### a).Structure

The illustration(Figure 2.1) shows the structure of the WHOQOL-Bref questionnaire

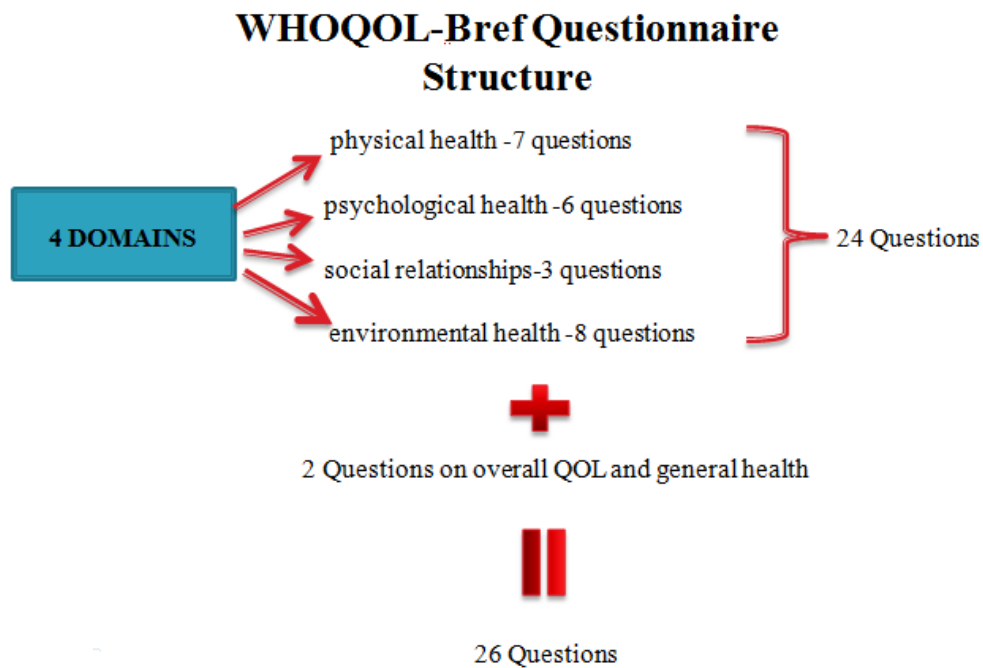


Figure 2.1

Below given are the different domains and their implications. Questions are framed in such a way that the facts are incorporated in them.

## WHOQOL-BREF domains

Domain	Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work Capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality / Religion / Personal beliefs Thinking, learning, memory and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation / leisure activities Physical environment (pollution / noise / traffic / climate) Transport

Table 2.1- User Manual, WHOQOL-Bref

### b).Significance

For the QOL assessment of my study group, I wanted a tool that is cross-culturally validated, short and less time consuming, easy to be scored and can be applied in smaller study groups. During this time I came across a study conducted in Karnataka to assess the QOL of ASHA (17) workers and also I found a similar study carried out among Anganwadi workers of Mandya

City(18). These two research works which administered WHOQOL-Bref provided the structural support for my study. The results obtained in this survey follows almost a similar trend (in the domain scores) as the other two works mentioned above.

## c).Scoring

Once the survey is done, we are left with the scores obtained by participants in 26 questions. This scoring is done on a one to five scales as there are five options for each question. A score of one is given for the option which shows the least frequency/satisfaction level and the rest follows accordingly. For example:

Very dissatisfied = 1

Dissatisfied = 2

Neither satisfied nor dissatisfied = 3

Satisfied = 4

Very satisfied = 5

From this score, we can calculate

1. 26 Facet scores=Mean scores of 41 respondents in each question
2. 4 Domain scores.
  - ▶ For each person surveyed, 4 domain scores( Raw score) were calculated by summing up the scores obtained in respective questions. (Three questions(Q3, Q4.Q26) were reverse scored, for their scores are inversely proportional to QOL )

❑ Physical Domain score =  $(6-Q3) + (6-Q4) + Q10 + Q15 + Q16+ Q17+ Q18)$

- ❑ Psychological Domain score= Q5+ Q6+ Q7+ Q11+ Q19+ (6-Q26)
- ❑ Social Relationships Domain score = Q20+ Q21+ Q22
- ❑ Environmental Domain score= Q8 + Q9+ Q12+ Q13+ Q15+ Q23+ Q24+ Q25

Raw scores were then transformed to a 1 to 100 scale using the transforming method provided in the WHOQOL-Bref user manual. The table(table 2.2) gives the transformation method.

**Table 4 - Method for converting raw scores to transformed scores**

DOMAIN 1			DOMAIN 2			DOMAIN 3			DOMAIN 4		
Raw score	Transformed scores		Raw score	Transformed scores		Raw score	Transformed scores		Raw score	Transformed scores	
	4-20	0-100		4-20	0-100		4-20	0-100		4-20	0-100
7	4	0	6	4	0	3	4	0	8	4	0
8	5	6	7	5	6	4	5	6	9	5	6
9	5	6	8	5	6	5	7	19	10	5	6
10	6	13	9	6	13	6	8	25	11	6	13
11	6	13	10	7	19	7	9	31	12	6	13
12	7	19	11	7	19	8	11	44	13	7	19
13	7	19	12	8	25	9	12	50	14	7	19
14	8	25	13	9	31	10	13	56	15	8	25
15	9	31	14	9	31	11	15	69	16	8	25
16	9	31	15	10	38	12	16	75	17	9	31
17	10	38	16	11	44	13	17	81	18	9	31
18	10	38	17	11	44	14	19	94	19	10	38
19	11	44	18	12	50	15	20	100	20	10	38
20	11	44	19	13	56				21	11	44
21	12	50	20	13	56				22	11	44
22	13	56	21	14	63				23	12	50
23	13	56	22	15	69				24	12	50
24	14	63	23	15	69				25	13	56
25	14	63	24	16	75				26	13	56
26	15	69	25	17	81				27	14	63
27	15	69	26	17	81				28	14	63
28	16	75	27	18	88				29	15	69
29	17	81	28	19	94				30	15	69
30	17	81	29	19	94				31	16	75
31	18	88	30	20	100				32	16	75
32	18	88							33	17	81
33	19	94							34	17	81
34	19	94							35	18	88
35	19	94									

Table 2.2

After transformation we get the transformed domain scores for each respondents as follows.(Table 2.3)

Following this mean score for each domain is calculated and plotted to get the graph for domain scores.( Graph 2.37)



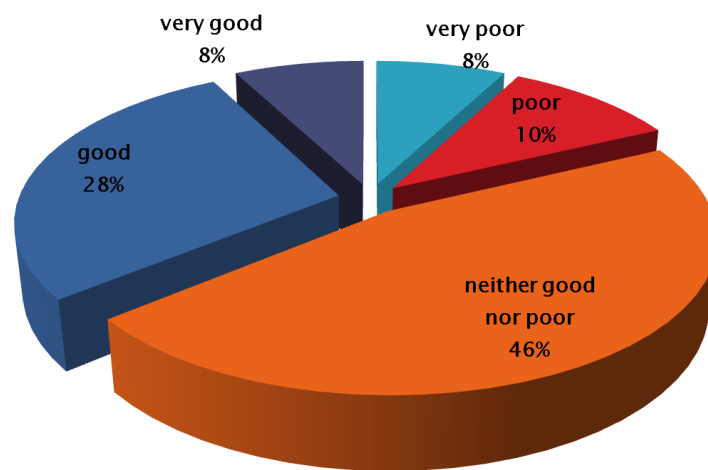
<b>Participant/Domain</b>	<b>physical</b>	<b>psychological</b>	<b>social</b>	<b>environmental</b>
Worker 1	56%	64%	68%	90%
Worker 2	45%	89%	53%	64%

Table 2.3

## 2.3 Survey

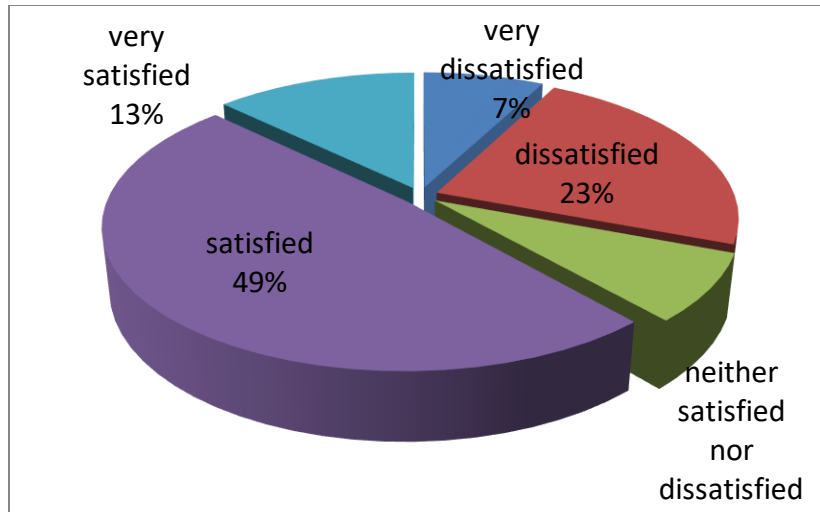
The first two questions don't belong to any domain. It deals with the overall QOL and health status of participants.(11)

Q1. How do you rate the quality of your life?



Graph 2.10

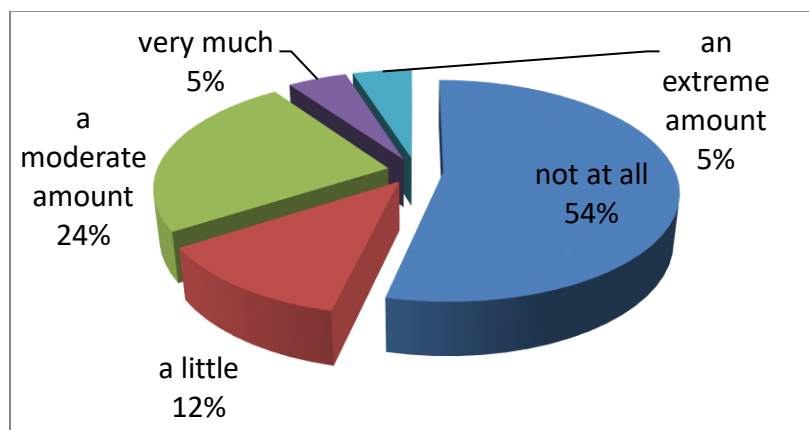
Q2.How satisfied are you with your health?



Graph 2.12

Q3.To what extent do you think that physical pain prevents you from doing what you need to do?

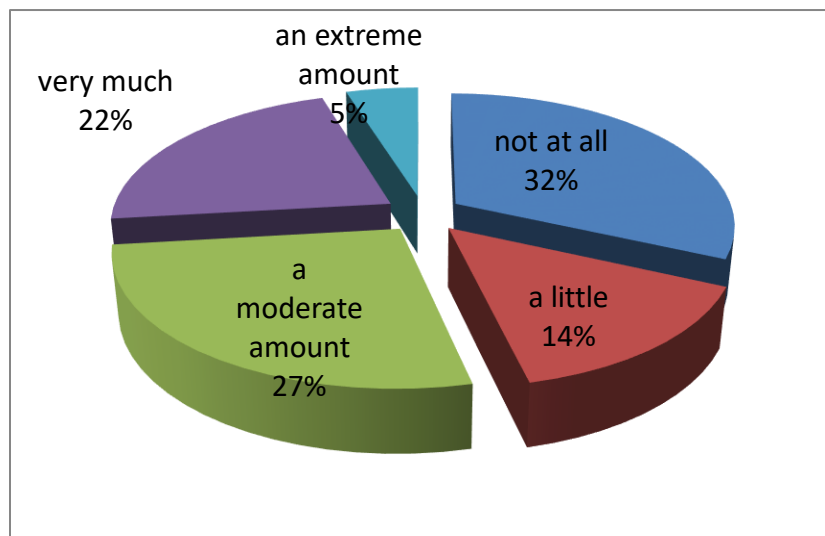
- ▶ This is one of the questions from the physical health domain.
- ▶ Physical pain includes any bodily discomfort, long-term/short term. Even if there is no medical evidence for this feeling, if the person experiences it, then it is found to affect the QOL negatively.E.g. Migraine, gastro intestinal problems, joint pain etc.



Graph 2.13

Q.4.How much do you need any medical treatment to function in your daily life?

- ▶ Physical health domain
- ▶ This question enquires whether the person takes any drug daily or is a there frequent visitation to hospitals or whether she/he is undergoing any other medications.

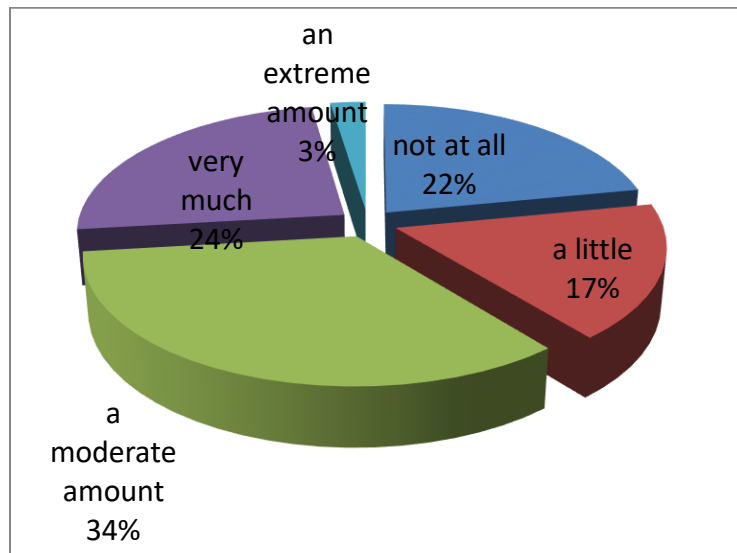


Graph 2.14

Q5. How much do you enjoy your life?

- ▶ Belongs to psychological health

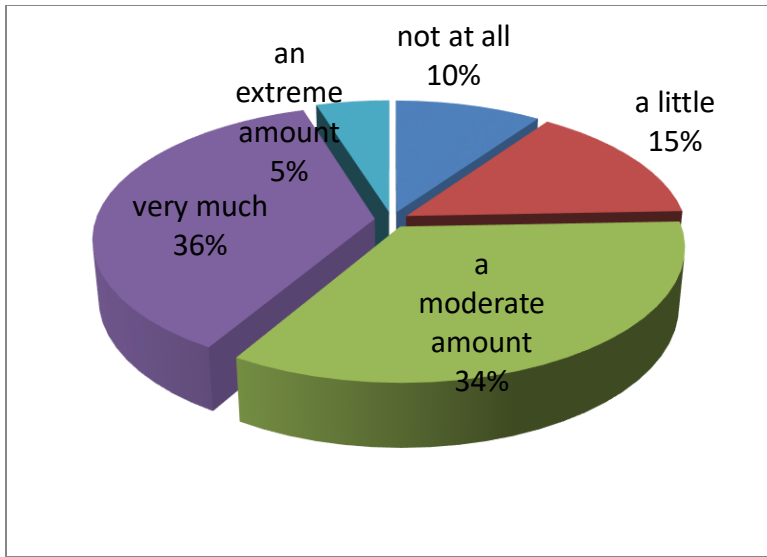
- ▶ This question examines the person's feelings of happiness, enjoyment, contentment, hopefulness, peace and balance in their life.



Graph 2.15

Q6. To what extent do you feel your life to be meaningful?

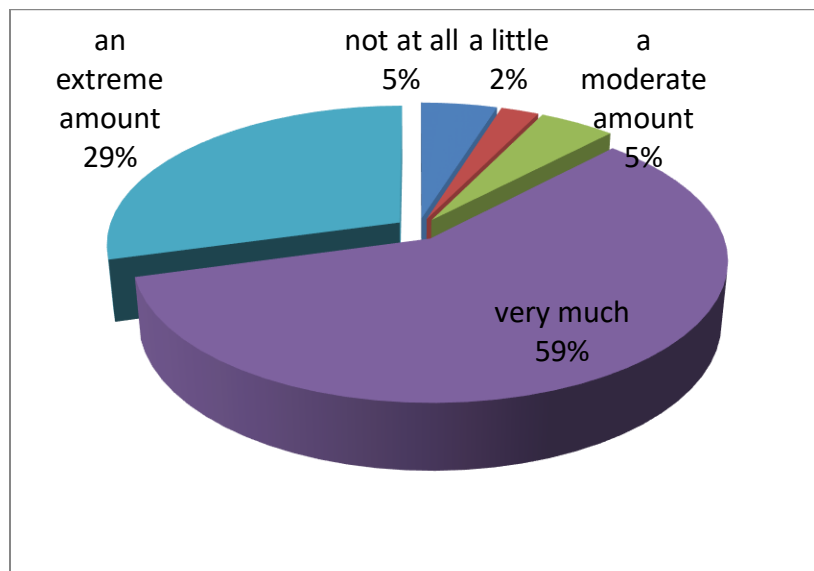
- ▶ Psychological health
- ▶ Every individual has her own beliefs about a meaningful life. Religious beliefs, self-acquired wisdom, naturally inculcated values or meanings etc. can act as a source for this. This question is framed in this context.



Graph 2.16

Q7. How well are you able to concentrate?

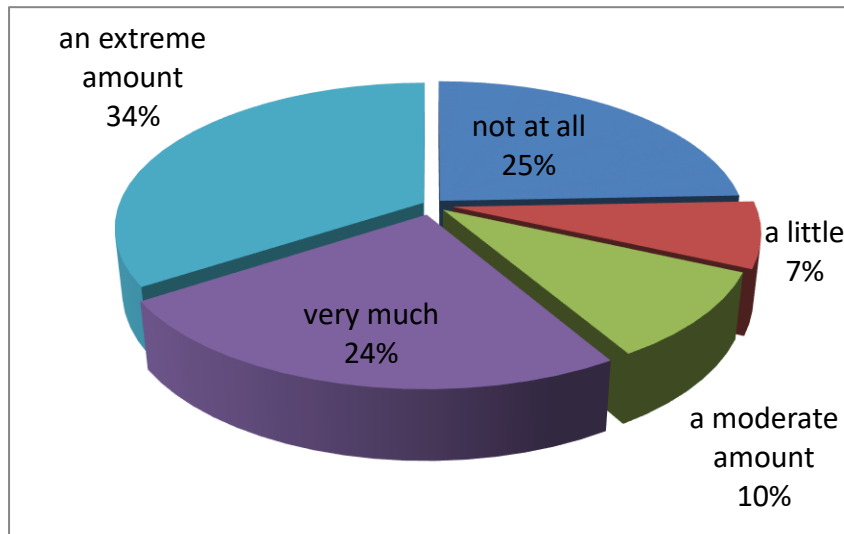
- ▶ Psychological health
- ▶ This question explores the feelings of an individual about her/his memory, decision-making capacity, concentration, learning skills etc



Graph 2.17

Q8. How safe do you feel in your daily life?

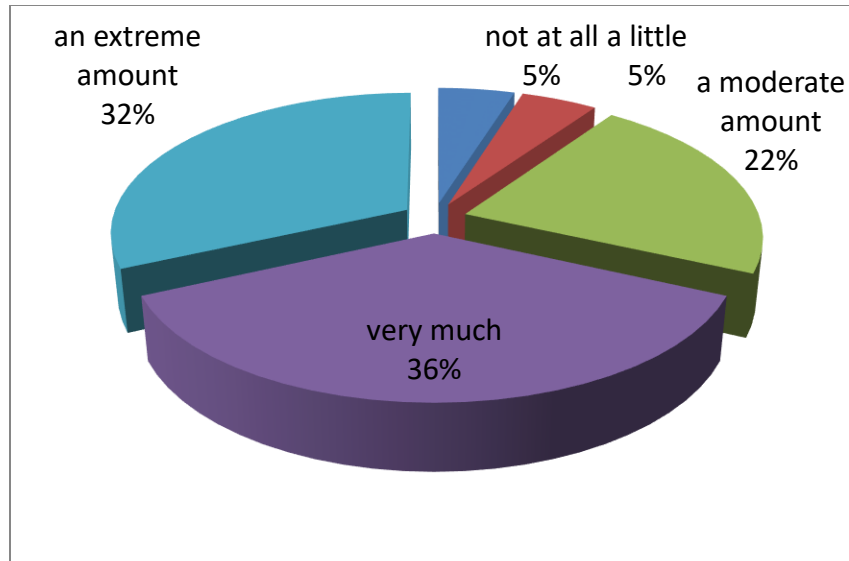
- ▶ Environment domain
- ▶ This question is about the threat to physical safety by other people, social/political oppression, insecurities at a hazardous job etc. The sense of freedom is associated with this.



Graph 2.18

Q9. How healthy is your physical environment?

- ▶ Environment domain
- ▶ This question is about how the person feels about her environment. It includes air, water soil or noise pollution, climate and general aesthetic of the environment.

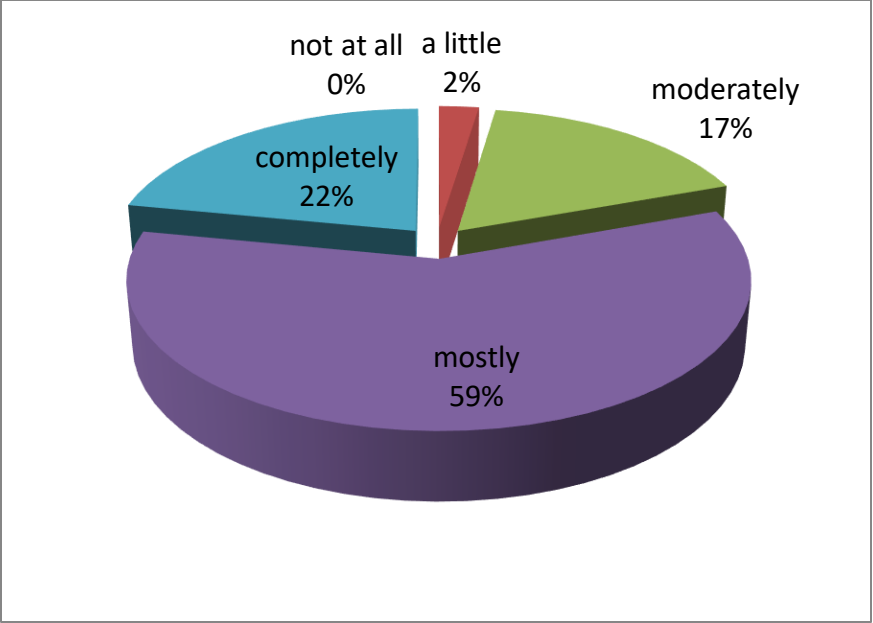


Graph 2.19

Q10. Do you have enough energy for everyday life?

- ▶ Physical health
- ▶ The level of energy, enthusiasm or endurance of a person to perform daily activities can be affected by illness, depression or overexertion at the workplace.

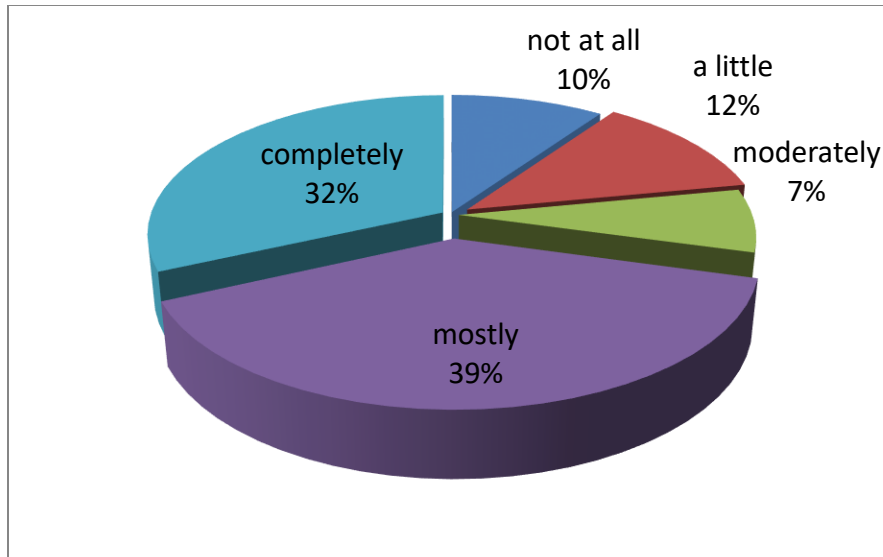




Graph 2.20

Q11. Are you able to accept your bodily appearance?

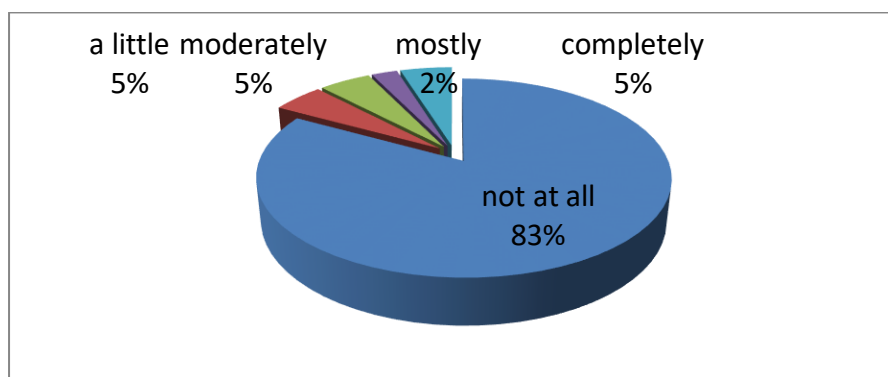
- ▶ Psychological health
- ▶ The person’s feeling about the way she looks.



Graph 2.21

Q12. Have you got enough money to meet your needs?

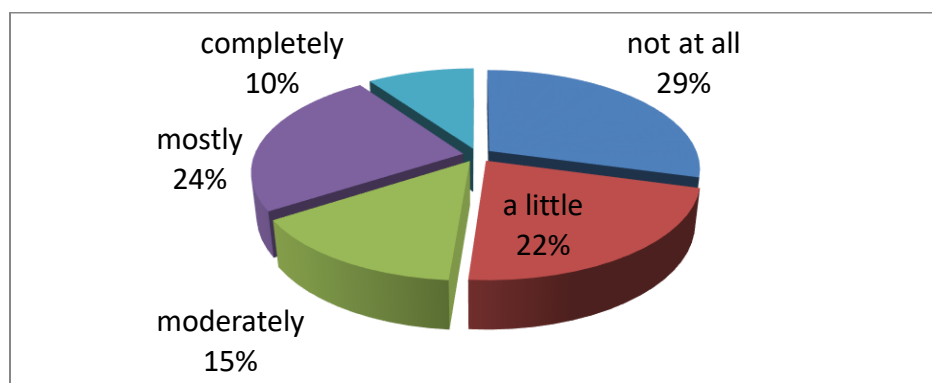
- ▶ Environment domain
- ▶ The sense of satisfaction/ dissatisfaction with those which the person's income enables them to obtain. Whether they are able to access resources for a healthy and comfortable life.



Graph 2.22

Q13. How available to you is the information you need in your day to day life?

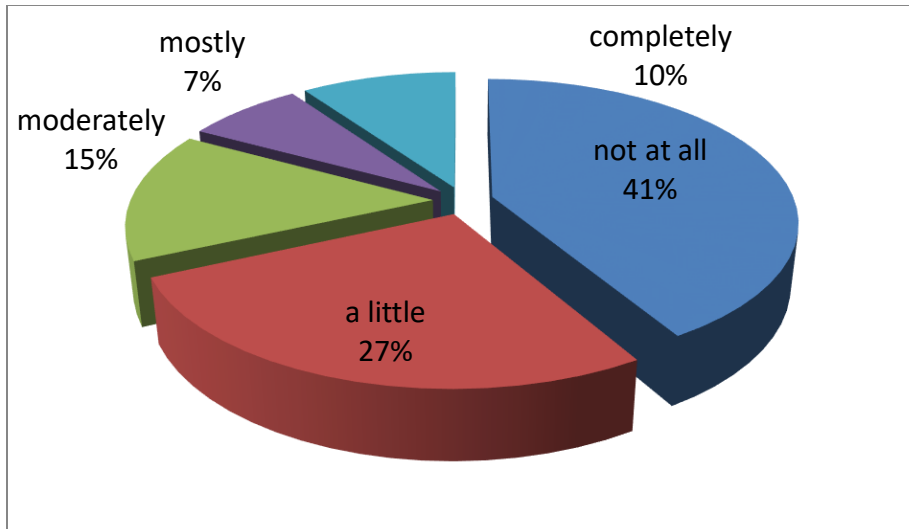
- ▶ Environment domain
- ▶ Information can include local, national or world news, village gossips, anything that is happening around them



Graph 2.23

Q14. To what extent do you have opportunities for leisure activities?

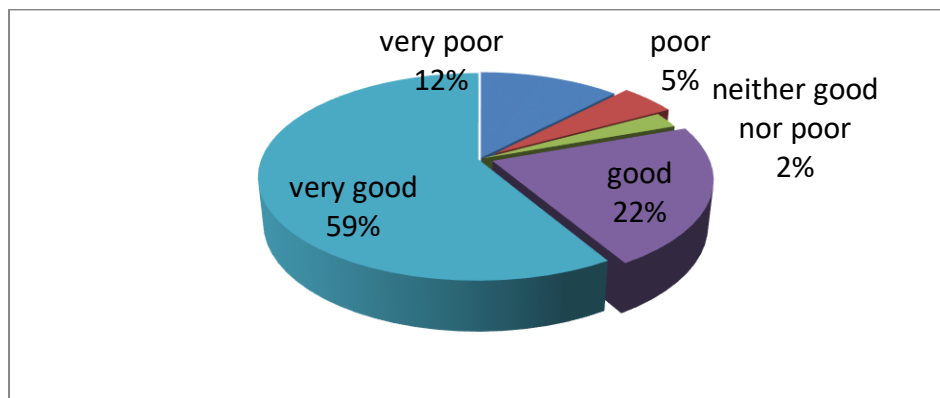
- ▶ Environment domain
- ▶ Relaxation and recreation activities- watching TV, spending time with family, doing nothing, seeing friends. Etc.



Graph 2.24

Q15. How well are you able to get around?

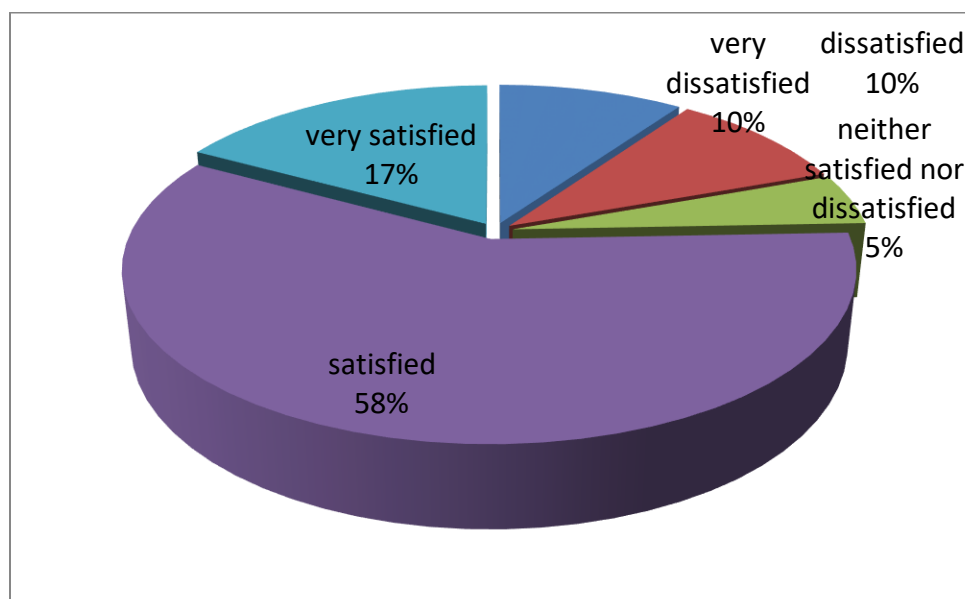
- ▶ Physical domain
- ▶ This question examines a person's ability to get from one place to other. Move around the home, move around the workplace, the person's general ability to go where ever she wants without the help of others.



Graph 2.25

Q16. How satisfied are you with your sleep?

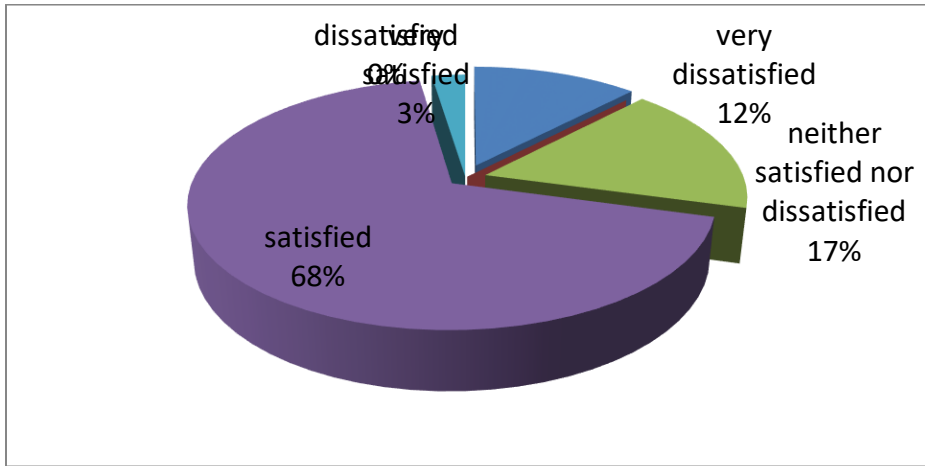
- ▶ Physical domain
- ▶ Quality of sleep, whether the person gets enough sleep, difficulty in going to sleep, waking up during night etc.



Graph 2.26

Q17. How satisfied are you with your abilities to perform daily living activities?

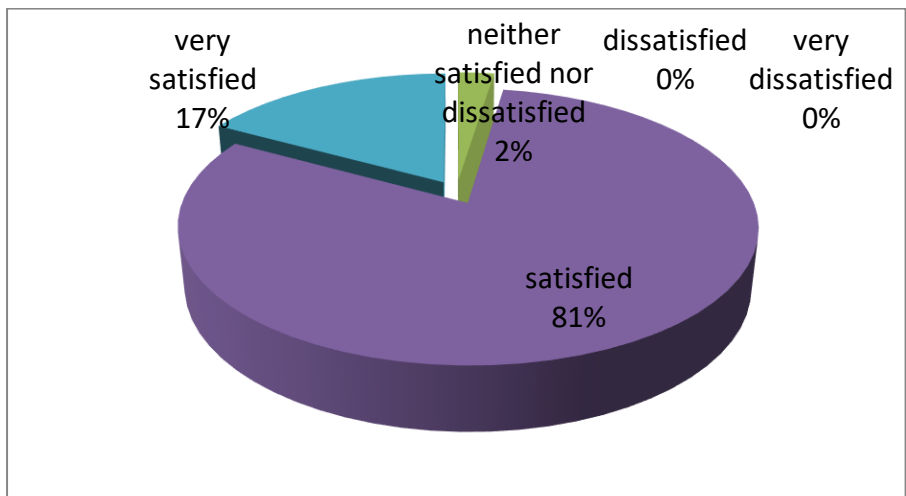
- ▶ Physical health domain
- ▶ Daily living activities include self-care activities, and those activities they carry out on a day to day basis — the degree to which they are dependent on others for getting this done.



Graph 2.27

Q18. How satisfied are you with your capacity to work?

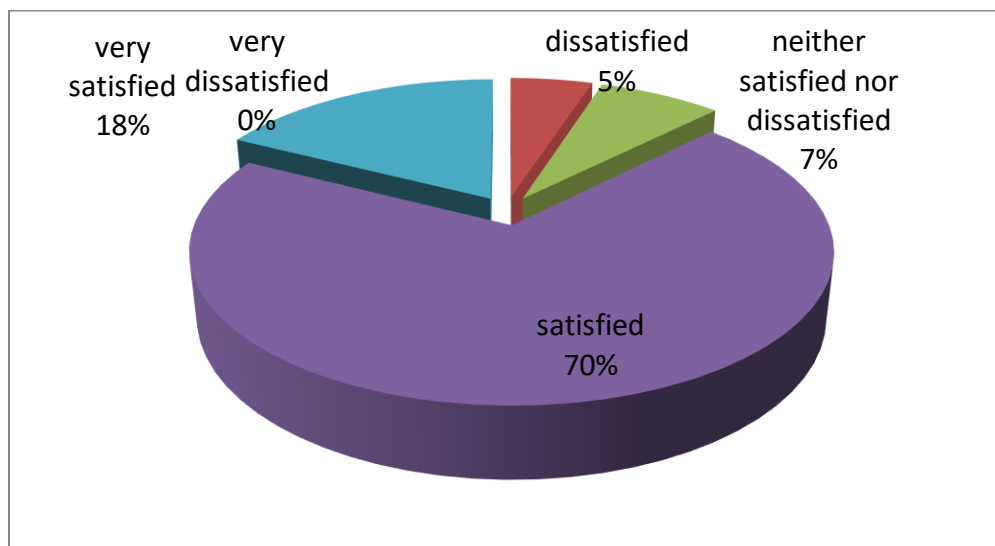
- ▶ Physical health
- ▶ Work is defined as any major activity the person is engaged in- paid or unpaid work.



Graph 2.28

Q19. How satisfied are you with yourself?

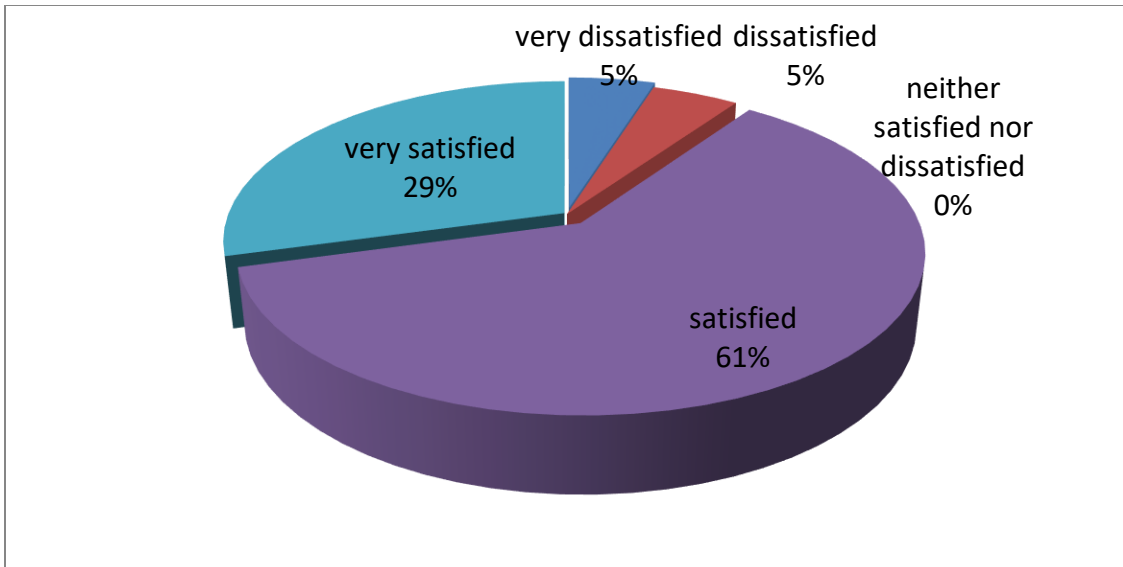
- ▶ Psychological domain
- ▶ This question is about self-esteem whether the person is happy/ satisfied with her position in the society as an individual.



Graph 2.29

Q20. How satisfied are you with your personal relationships?

- ▶ Social relationships
- ▶ This question addresses the feeling of companionship, love and support from the intimate relationship in their life. The extent to which people feel they can share moments of both happiness and distress with loved ones, a sense of loving and being loved, physical aspects of intimacy such as hugging and touch are also included.

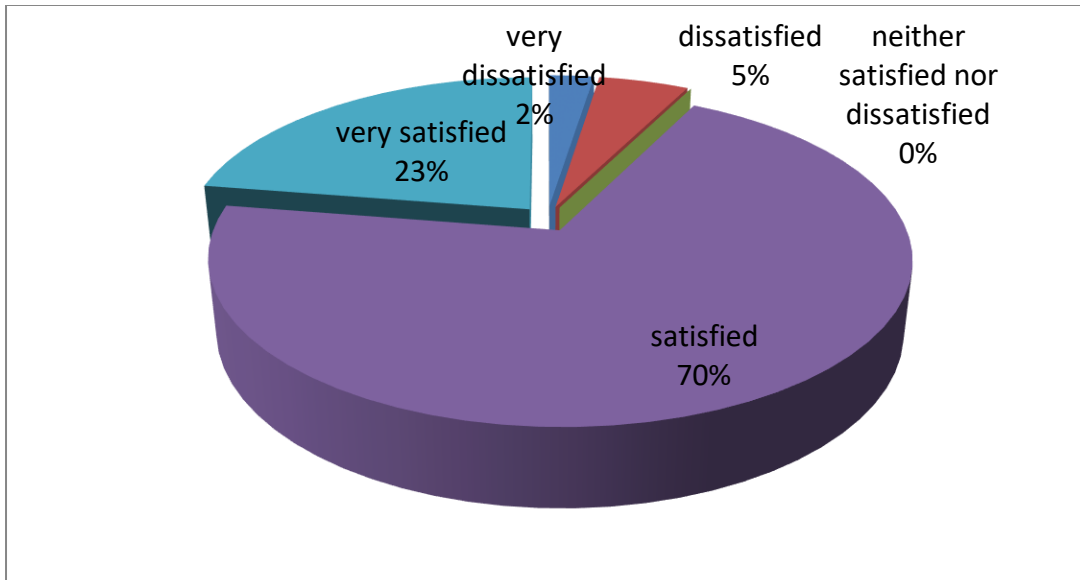


Graph 2.3

Q21. How satisfied are you in your married life?

- ▶ Social relationships
- ▶ This includes the relationship with the husband, help and support she gets from him, physical intimacy etc.

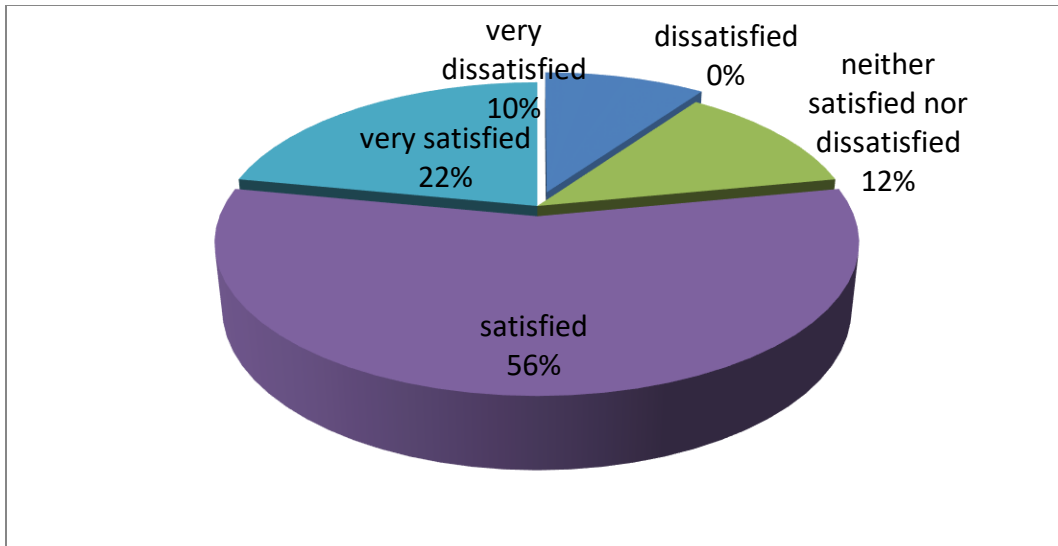




Graph 2.31

Q22. How satisfied are you with the support you get from friends?

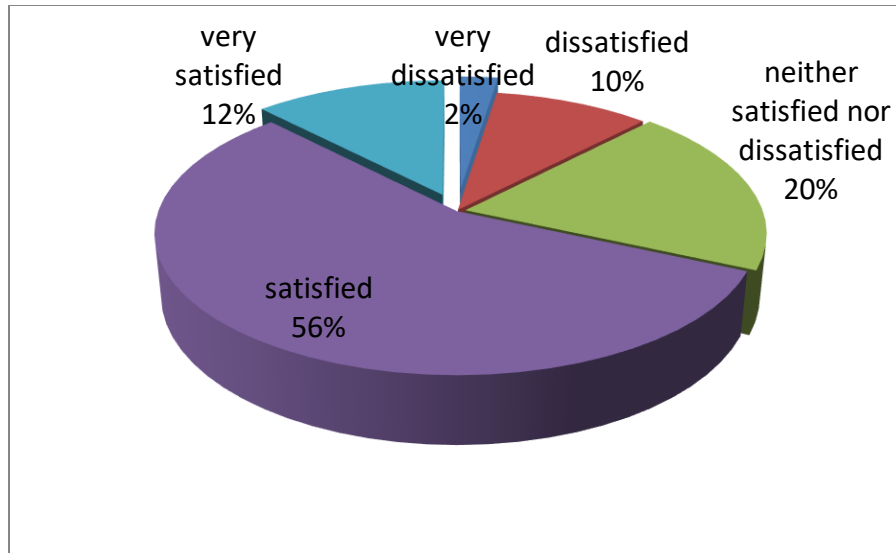
- ▶ Social relationship
- ▶ This examines how much the person feel commitment, approval, availability, and help from her friends to solve personal and family problems



Graph 2.32

Q23. How satisfied are you with the conditions of your living place?

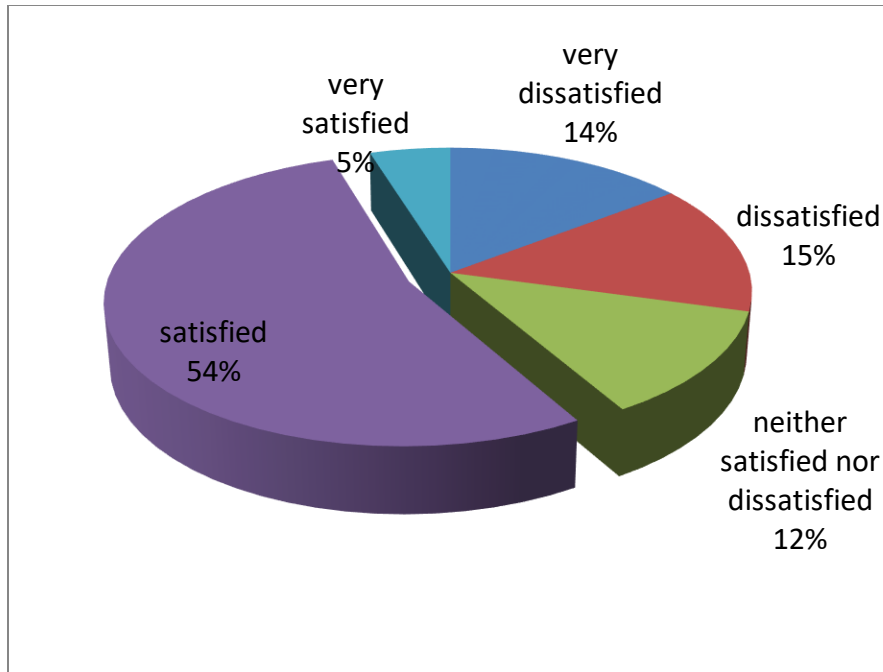
- ▶ Environment domain
- ▶ Cleanliness, privacy, crowdedness, facilities for running water, electricity and toilets etc are included.



Graph 2.33

Q24. How satisfied are you with your access to health services?

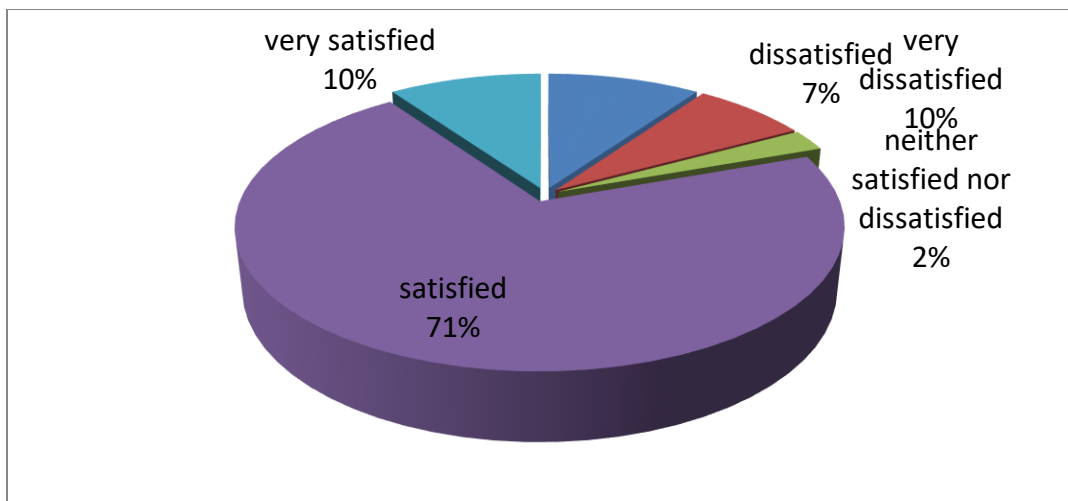
- ▶ Environment domain
- ▶ Availability and accessibility of healthare facilities.



Graph 2.34

Q25. How satisfied are you with the transport facilities?

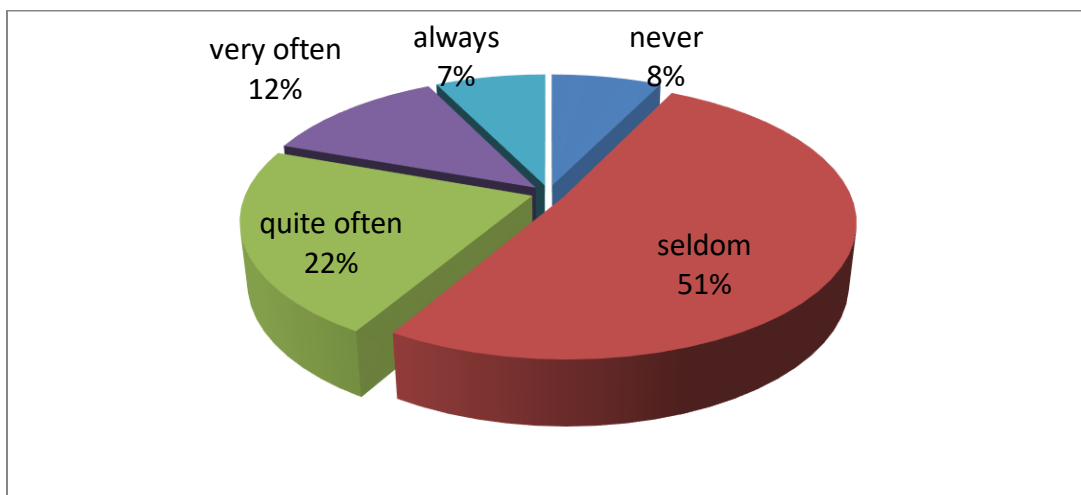
- ▶ Environment domain
- ▶ Enquires whether enough and adequate transport facilities are available or not.



Graph 2.35

Q26. How often do you have negative feelings such as blue mood, depression, anxiety, despair?

- ▶ Psychological domain
- ▶ The question includes all negative feelings those which influence the person's day to day life.



Graph 2.36

Now from these data, I tried to find out the mean score obtained in each of 26 questions. The results are given below.

### **Facets and scores arranged in descending order**

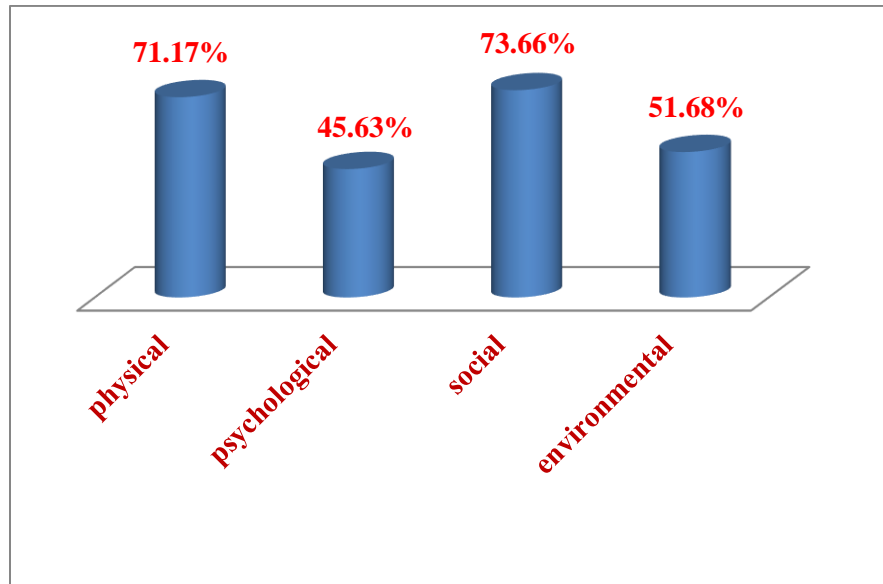
High score in a facet indicates that the person is doing well in that facet and thus concerning that facet the person has a high quality of life.

Facets	Mean $\pm$ sd
Work and capacity	4.15 $\pm$ 0.42
Mobility	4.1 $\pm$ 1.39
Pain and discomfort	4.05 $\pm$ 1.2
Personal relationships	4.05 $\pm$ .97
Freedom, physical safety and security	4.05 $\pm$ .94
Self-esteem	4.02 $\pm$ .68
Relationship with spouse	3.95 $\pm$ 1.02
Energy and fatigue	3.93 $\pm$ .75
Thinking, learning, memory and concentration	3.85 $\pm$ 1.08
Social support	3.8 $\pm$ 1.1
Bodily image and appearance	3.71 $\pm$ 1.3
Home environment	3.66 $\pm$ .91
Sleep and rest	3.63 $\pm$ 1.17
Transport	3.63 $\pm$ 1.08
Activities of daily living	3.49 $\pm$ 1.02
Dependence on medical substances and medical aid	3.46 $\pm$ 1.3
Negative feelings	3.39 $\pm$ 1.04
Physical environment	3.37 $\pm$ 1.6
General health	3.29 $\pm$ 1.2
overall quality of life	3.24 $\pm$ 1.02
Health and social care accessibility and quality	3.2 $\pm$ 1.2
Spirituality, religion and personal beliefs	3.12 $\pm$ 1.05
Positive feelings	2.68 $\pm$ 1.14
Opportunities for acquiring new information and skills	2.63 $\pm$ 1.39
Participation in and opportunities for recreation and leisure activities	2.17 $\pm$ 1.32
Financial resources	1.41 $\pm$ 1.04

Table 2.4

Once the mean scores for each facet were found, the next objective was to classify those 26 questions under four domains and then to calculate the domain scores. This calculation is not direct as it involves transforming raw domain scores obtained by simply summing up the scores of questions in each domain to a 1 to 100 scale. The transformation method was provided in the WHOQOL-Bref user manual. The percentage scores in the four domains of life of the participants are graphically represented below.

## Graph showing % score obtained in four domains of life



Graph 2.37

## Comparison of domain scores based on socio-demographic variables

Following this, I tried to compare the percentage scores for each domain obtained by different subgroups within the study group. Six subgroups were chosen based on different sociodemographic variables.

1. Religion (Hindu/Sikh)
2. Caste (SC/ST/OBC/GN)
3. Nativity (Natives/ Migrant)

4. Economic status based on the type of ration card (APL/BPL)

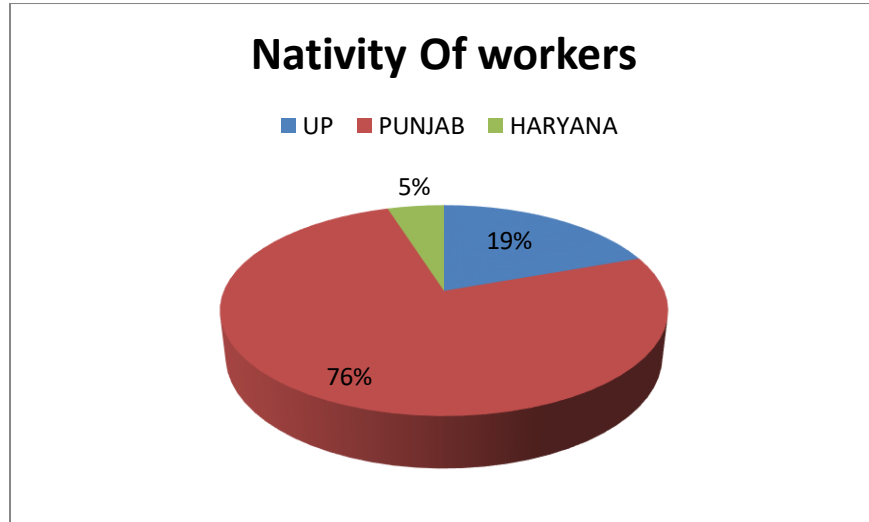
5. Age group (less than 30/ 30-39/40-49/50-59)

6. Education (literate/ illiterate)

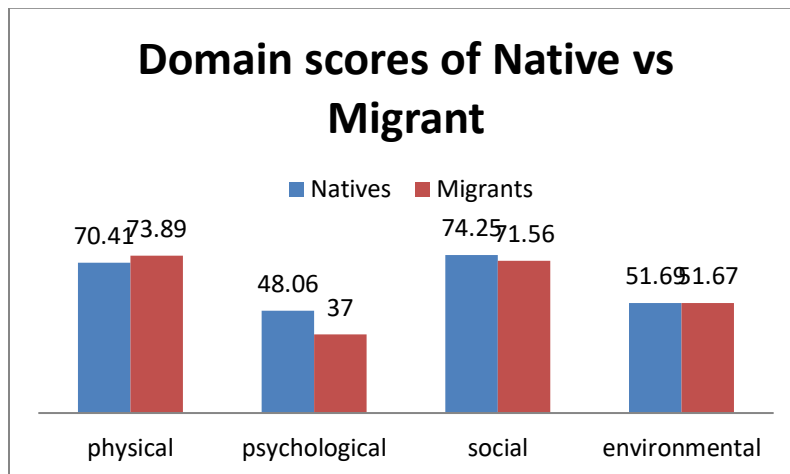


Graphs showing percentage composition of various subgroups within the study group and comparison of their domain scores

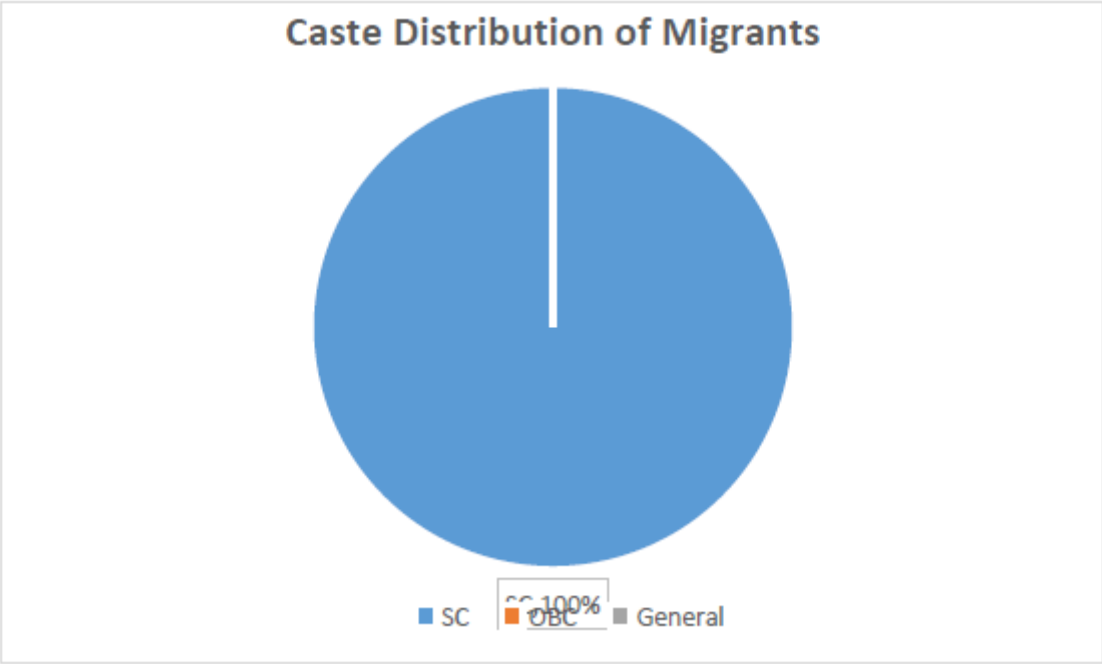
### 1. Nativity



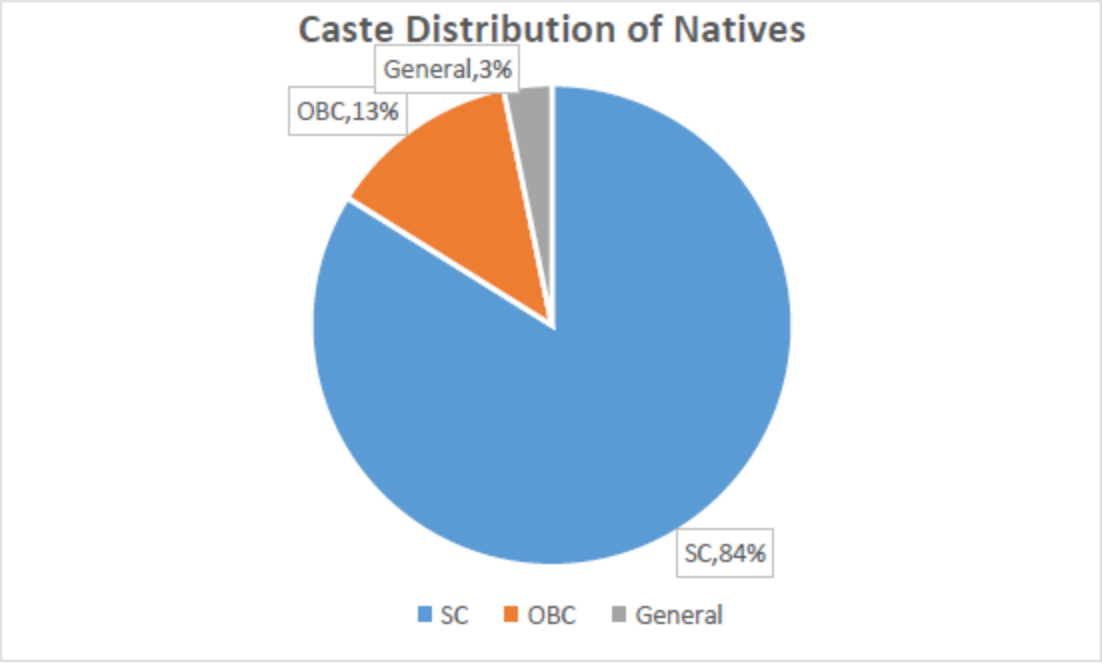
Graph 2.38



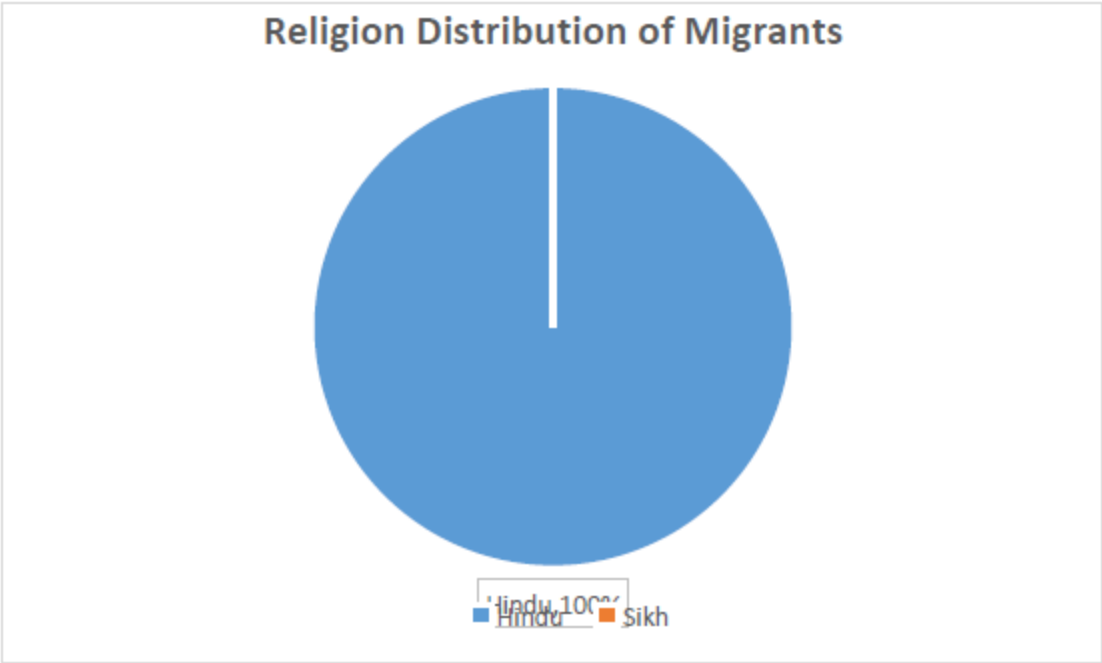
Graph 2.39



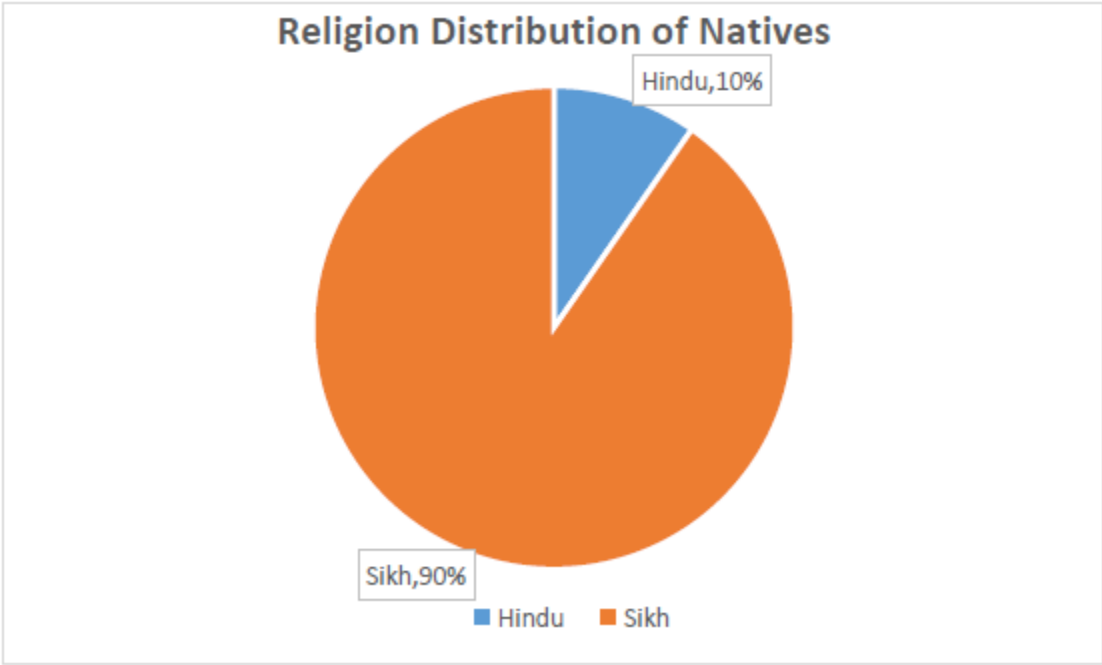
Graph 2.4



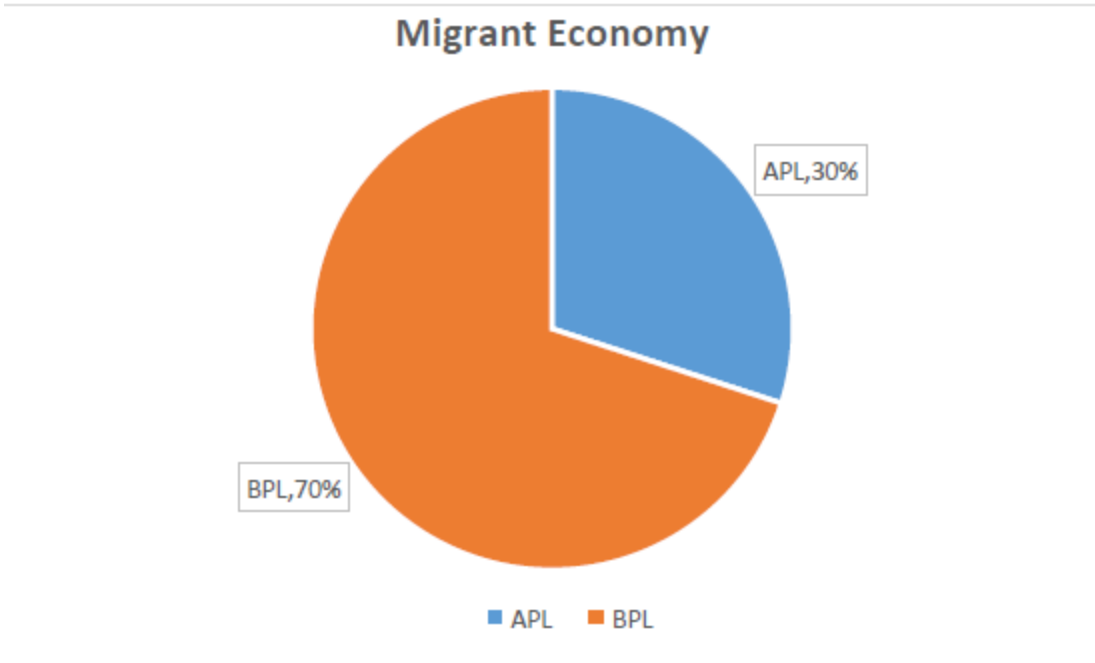
Graph 2.41



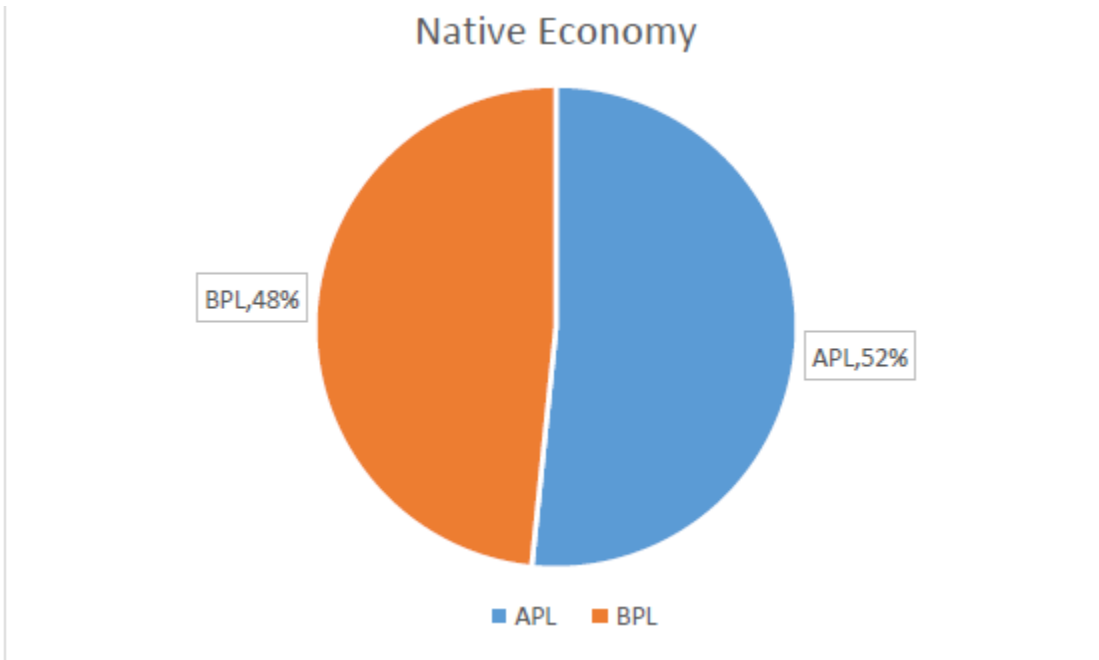
Graph 2.42



Graph 2.43



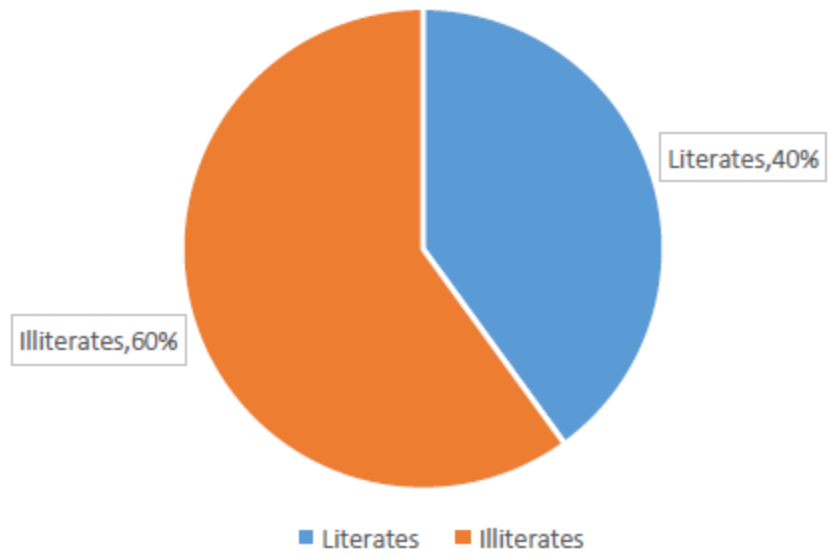
Graph 2.44



Graph 2.45

---

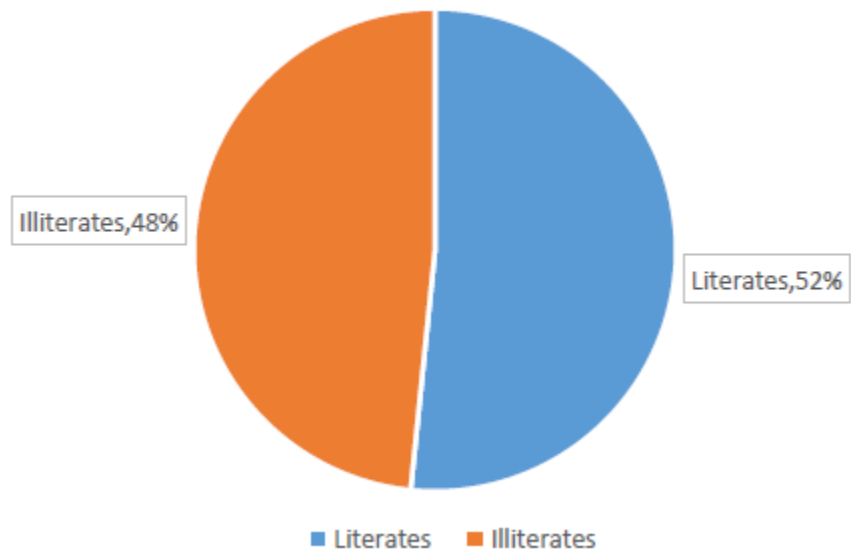
### Education of Migrants



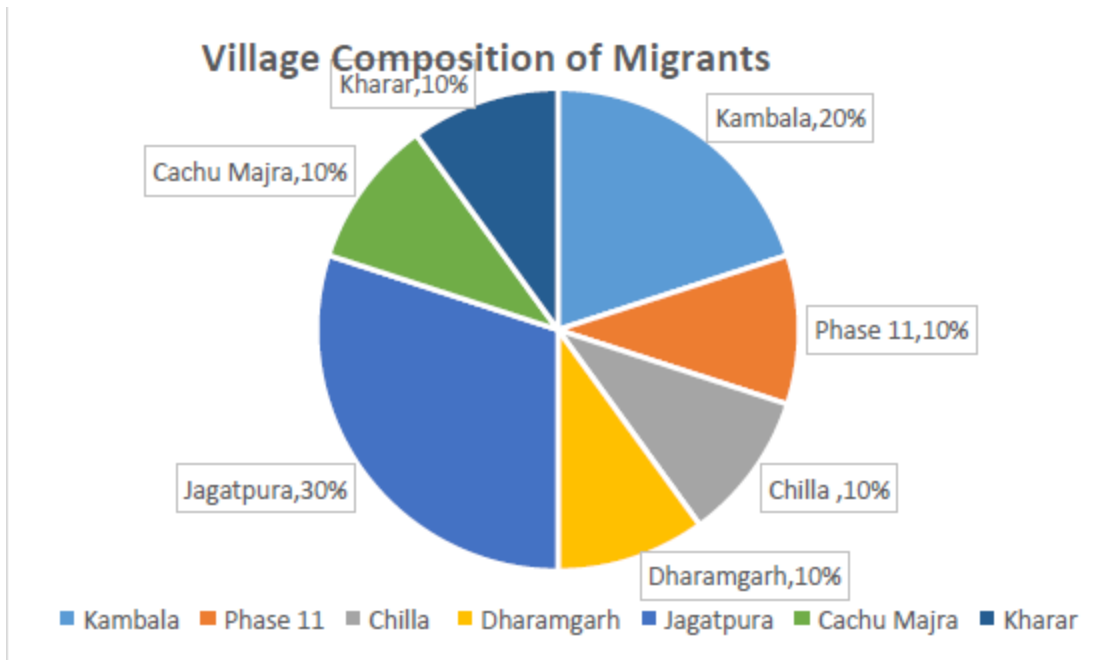
Graph 2.46

---

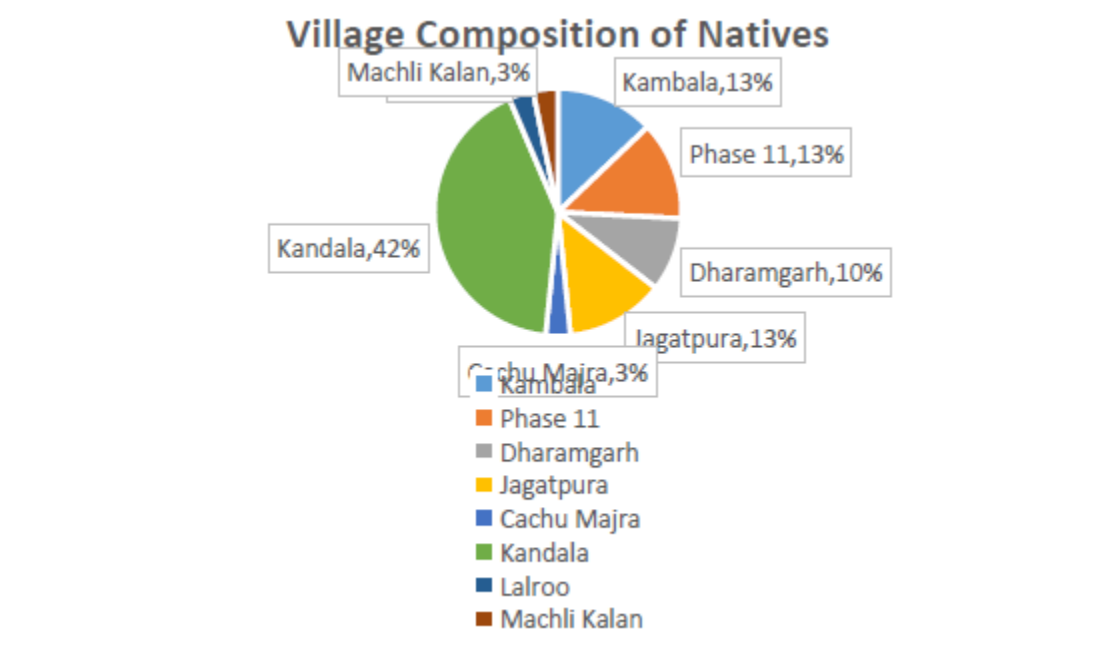
### Education of Natives



Graph 2.47

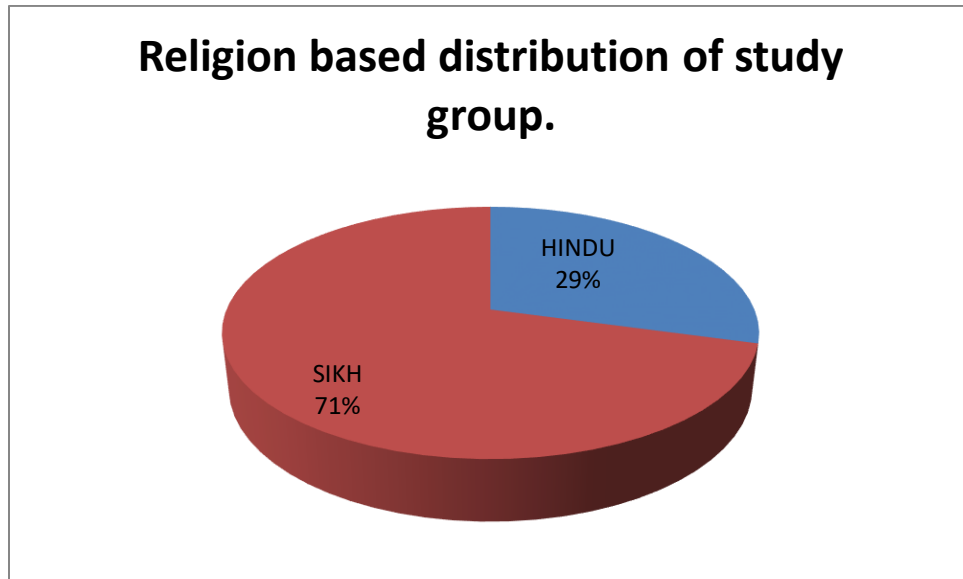


Graph 2.48

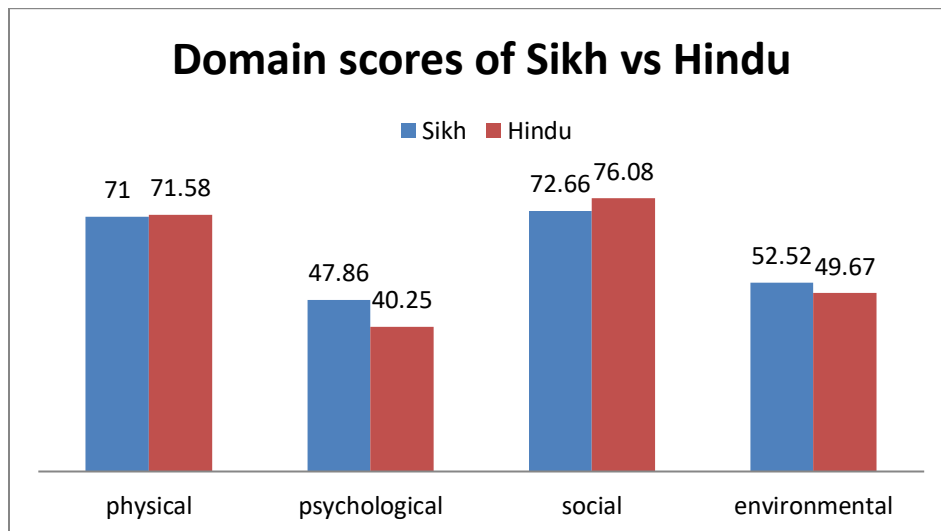


Graph 2.49

## 2. Religion

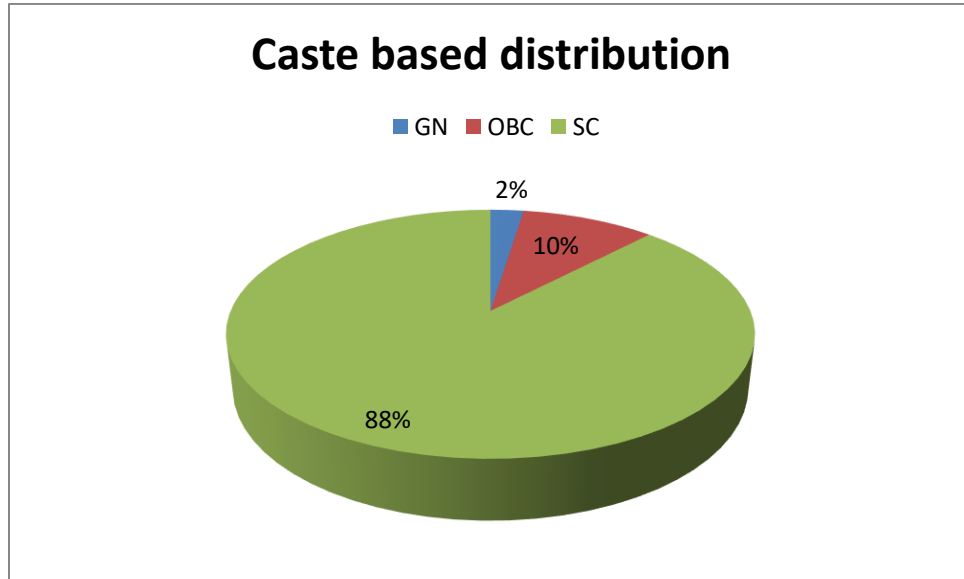


Graph 2.5

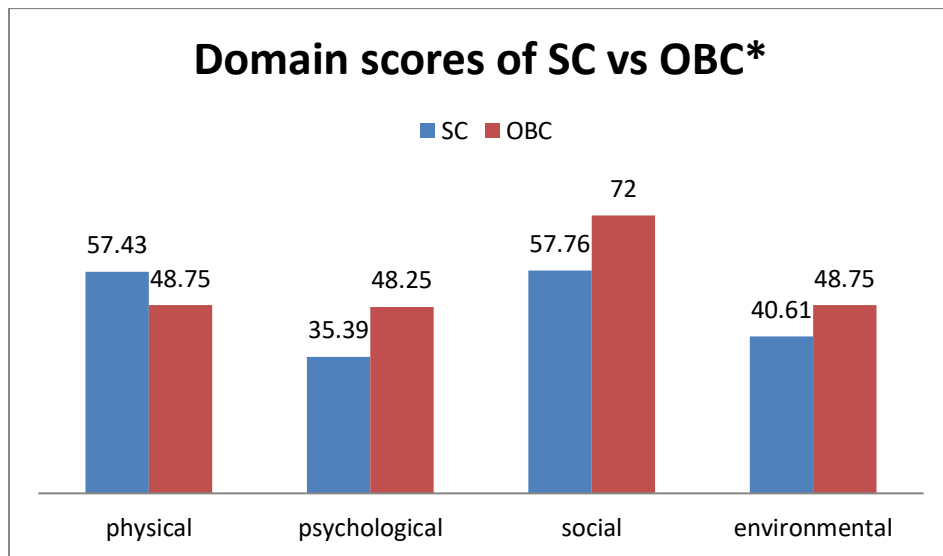


Graph 2.51

### 3. Caste



Graph 2.52

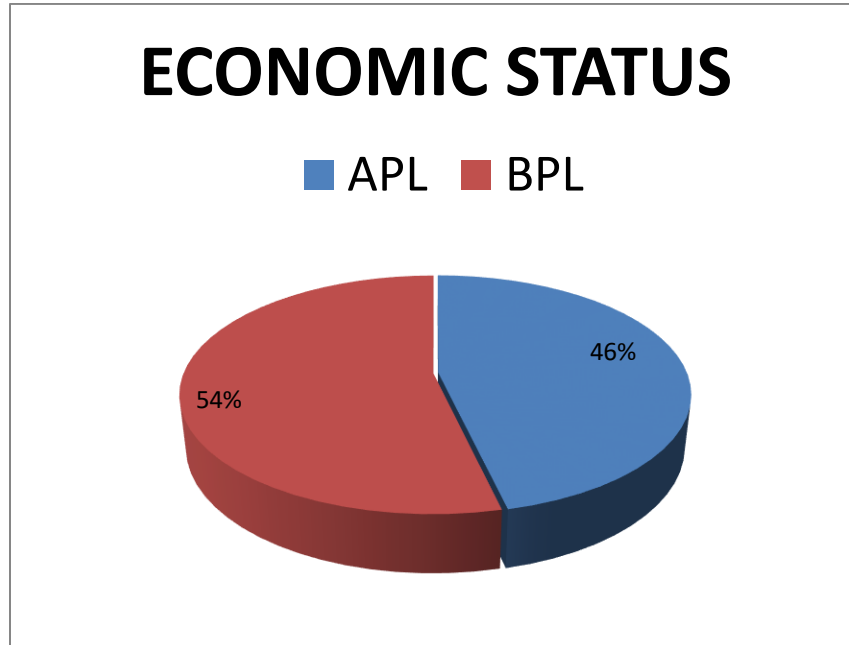


Graph 2.53

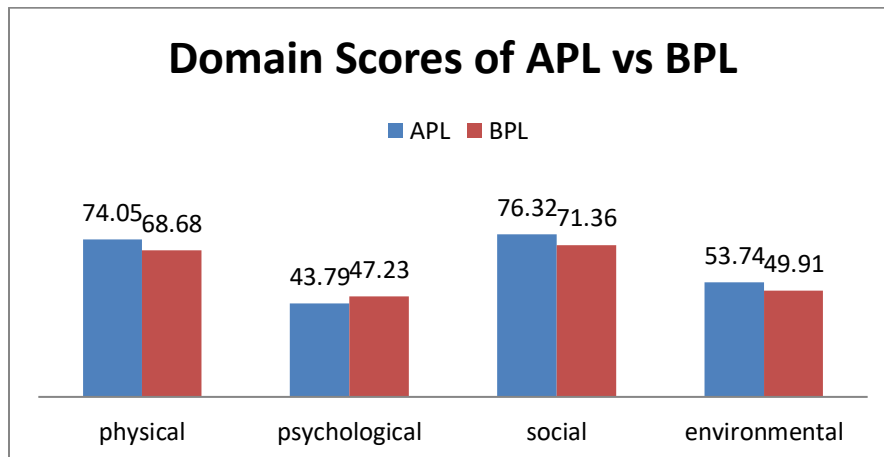
\*2% General category constitutes just one person. This data is so excluded.



#### 4. Economic status

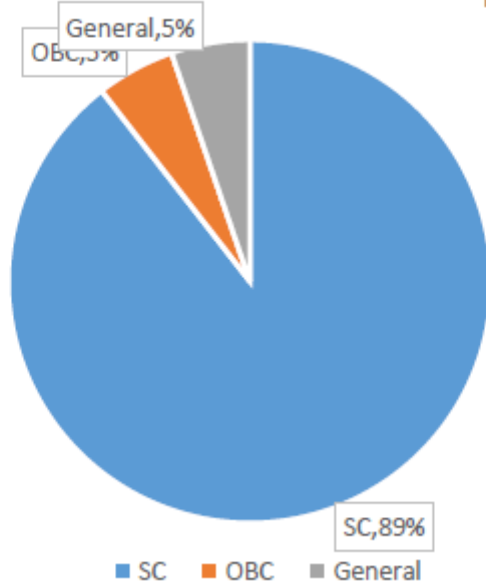


Graph 2.54



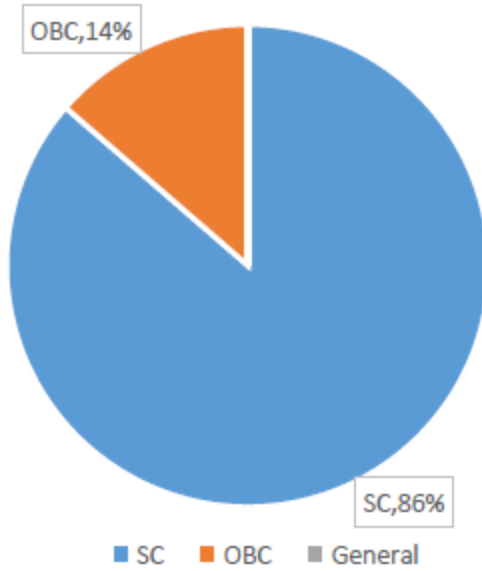
Graph 2.55

### Caste Distribution of APL People

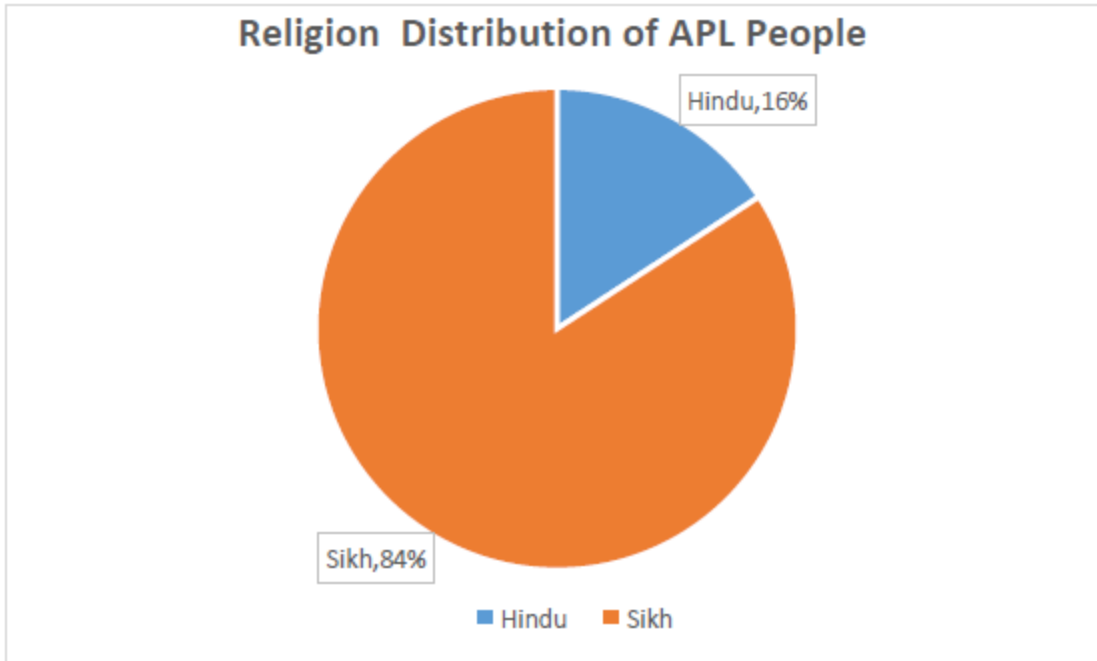


Graph 2.56

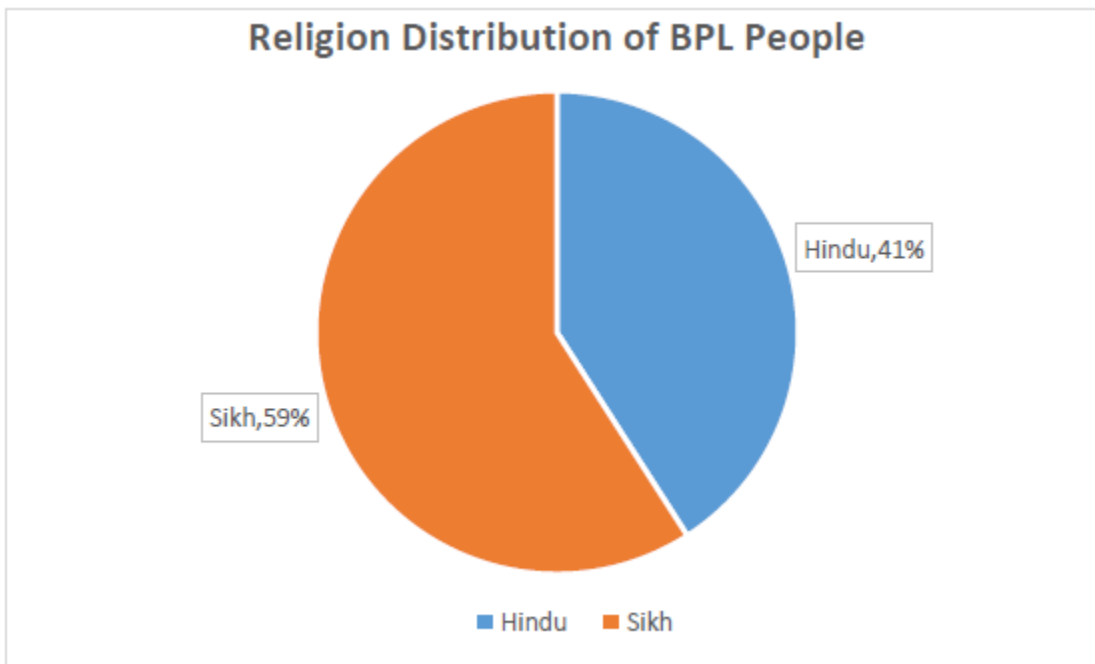
### Caste Distribution of BPL People



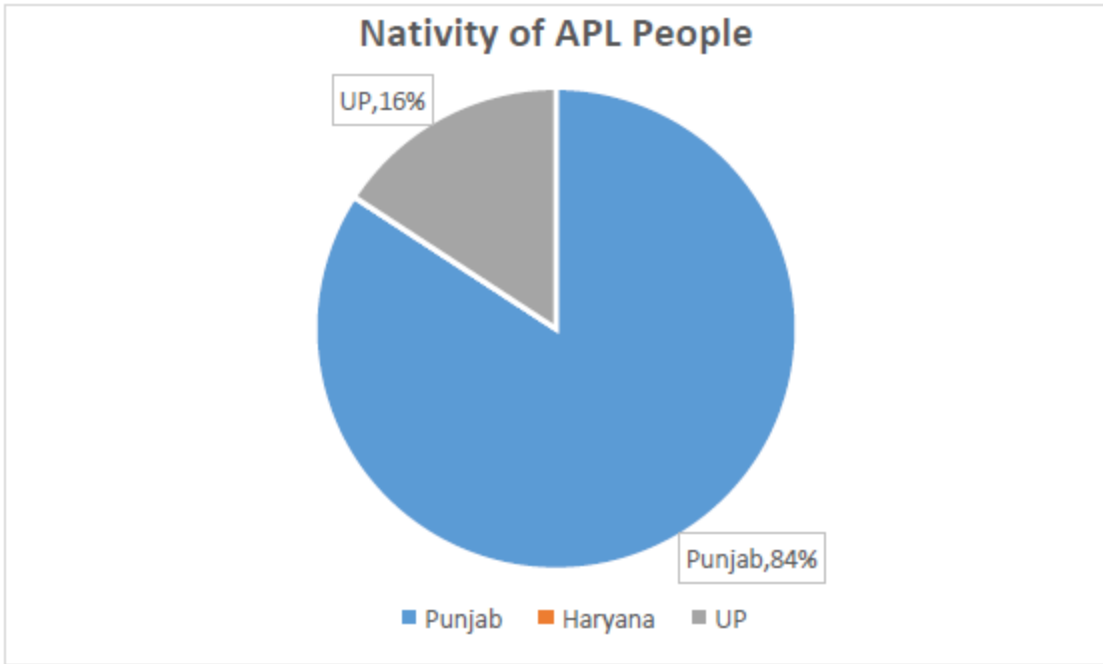
Graph 2.57



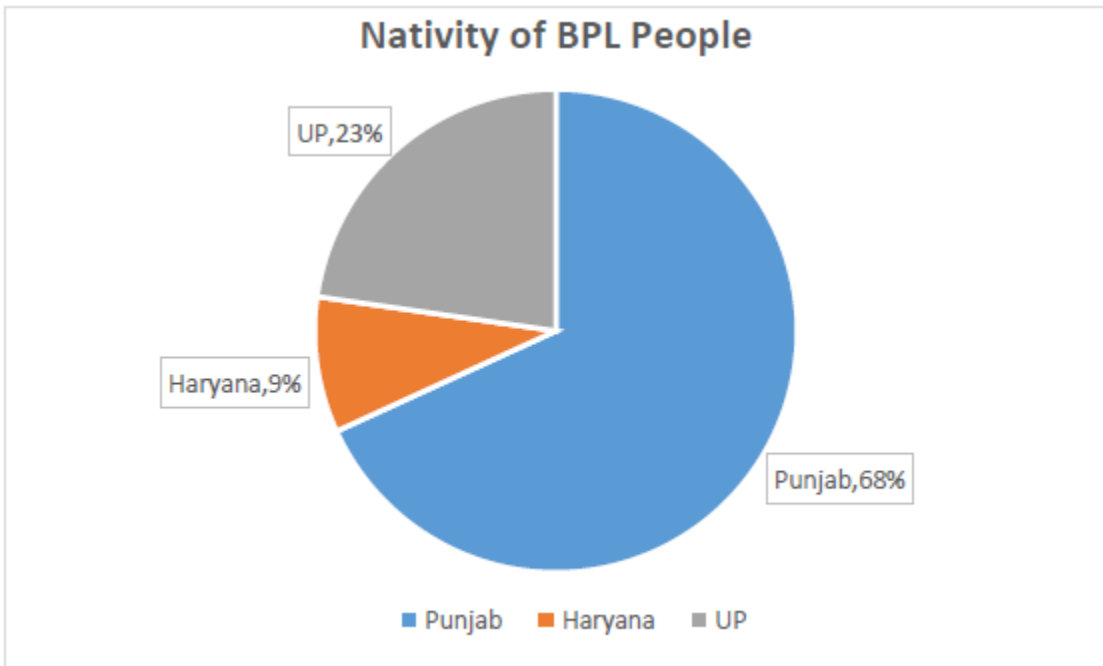
Graph 2.58



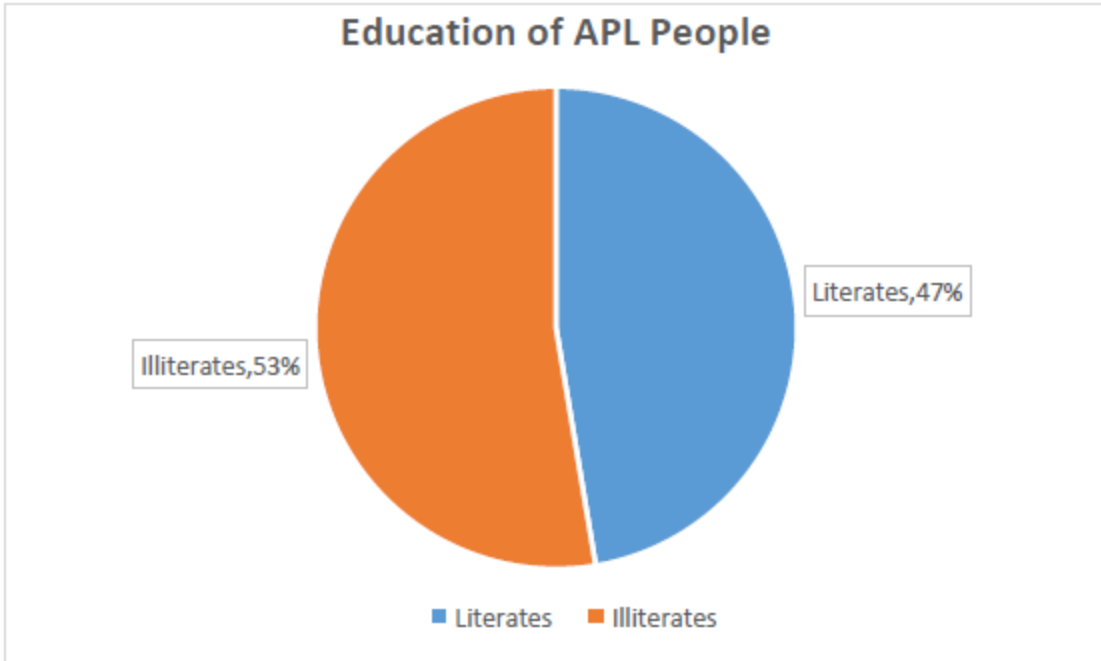
Graph 2.59



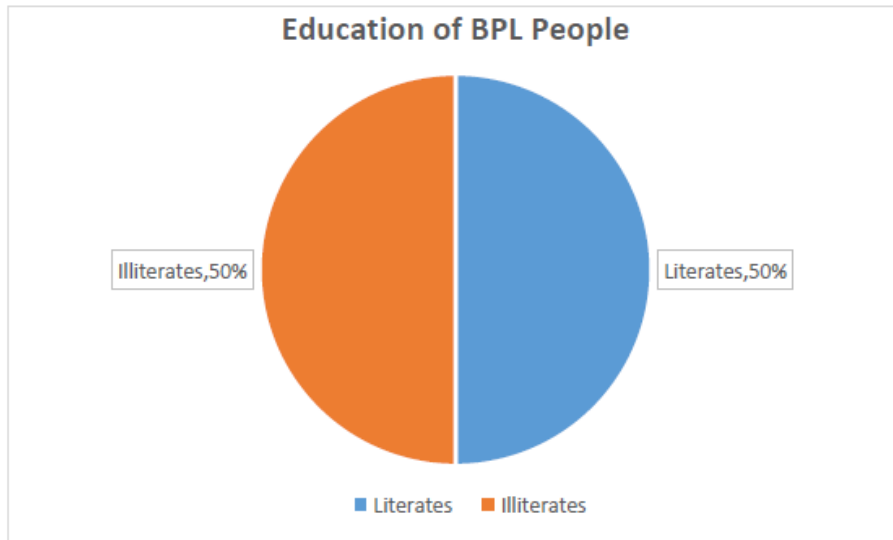
Graph 2.6



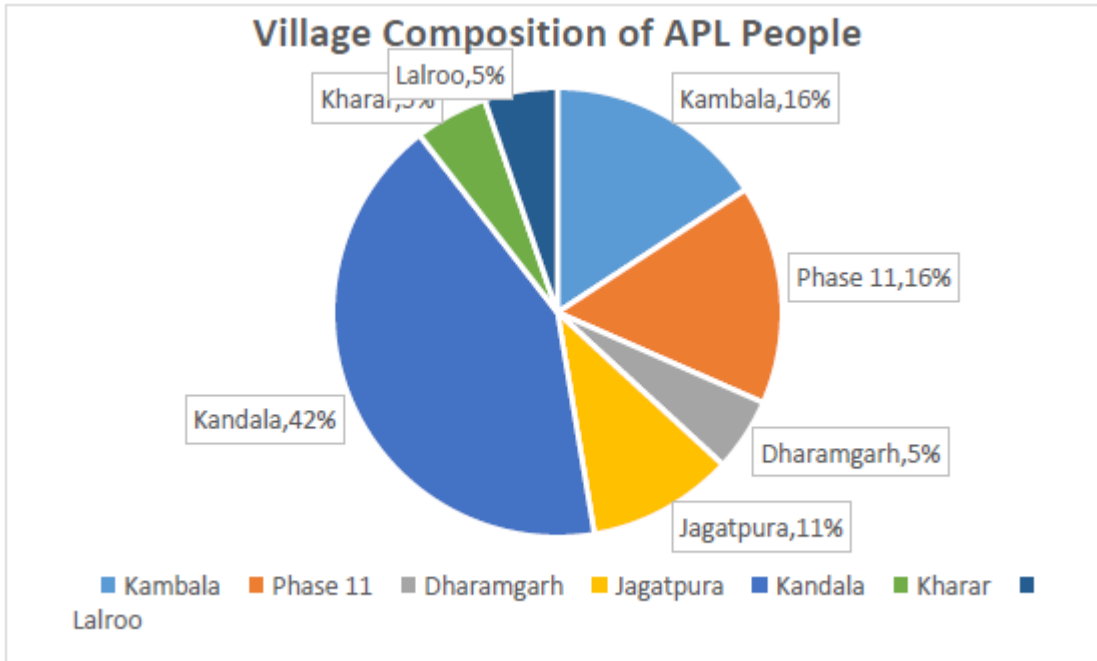
Graph 2.61



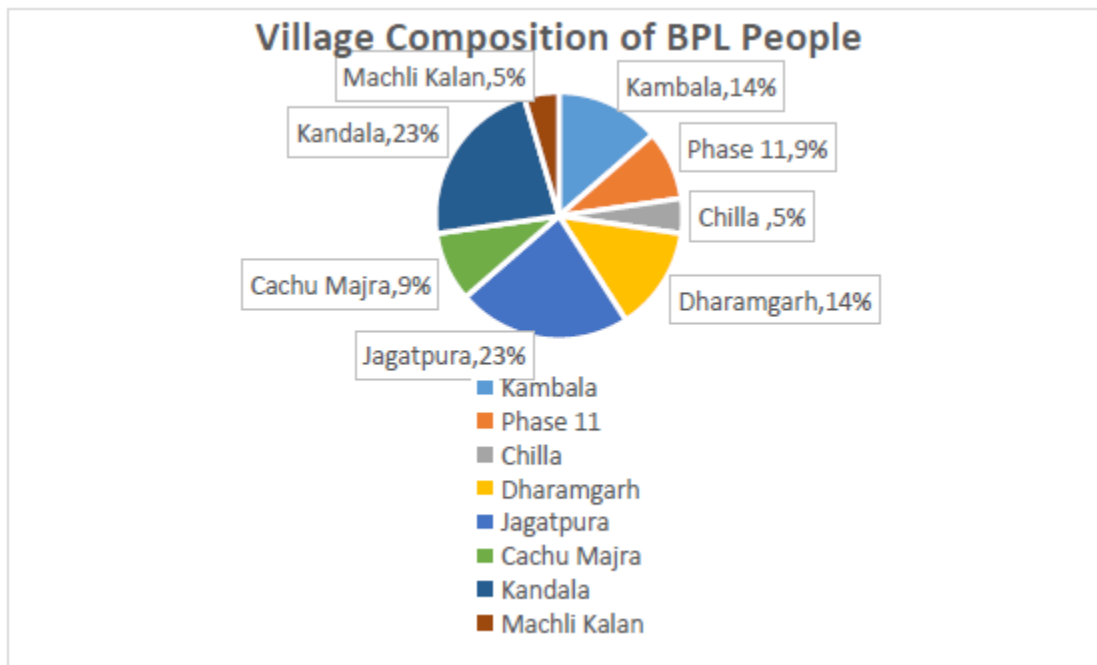
Graph 2.62



Graph 2.63

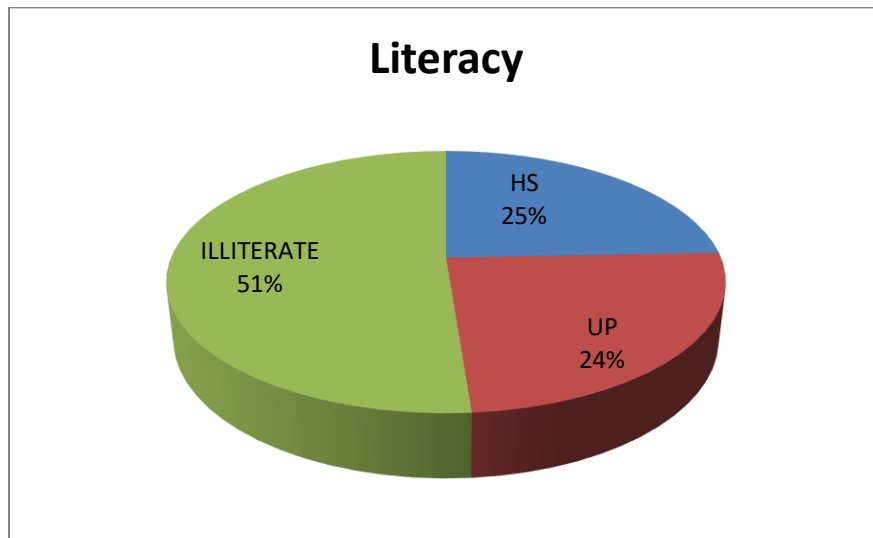


Graph 2.64

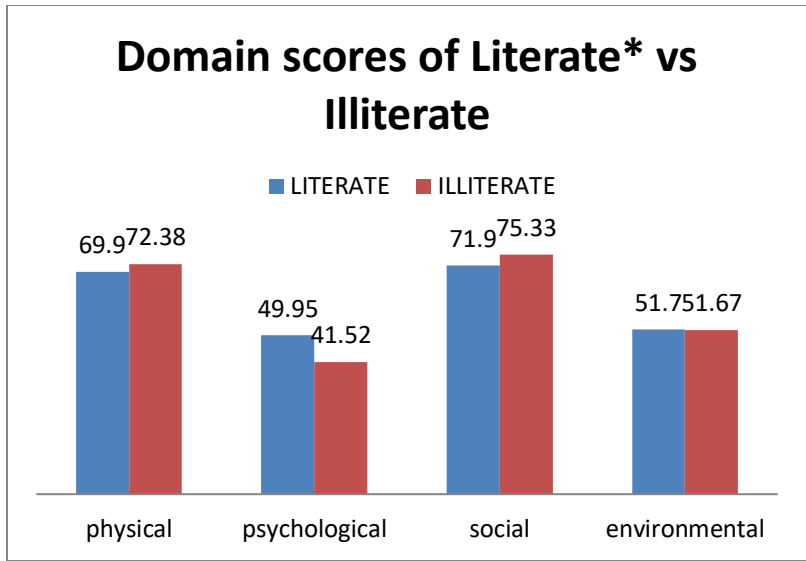


Graph 2.65

## 4. Literacy



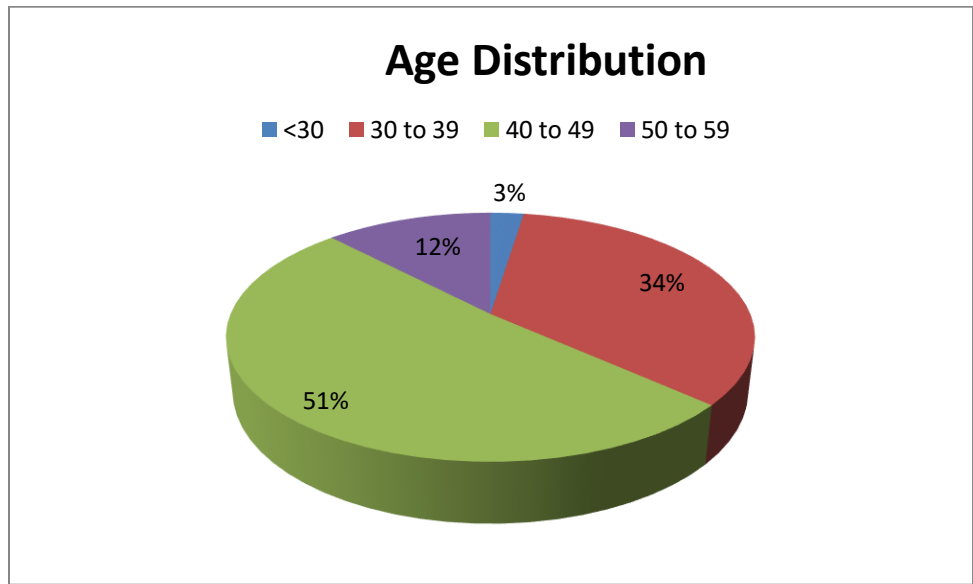
Graph 2.66



Graph 2.67

\*Literate is UP and HS combined

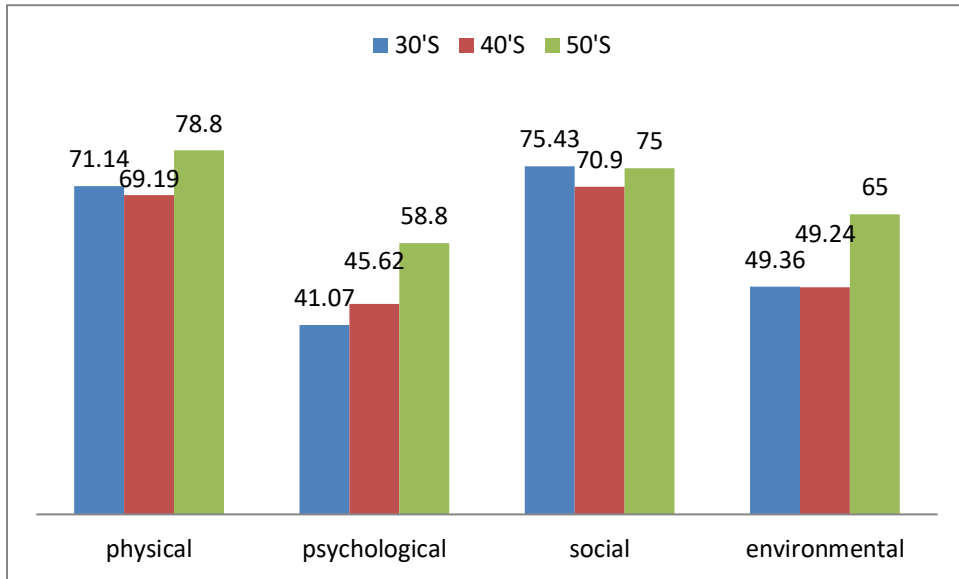
## 5. Age



Graph 2.68



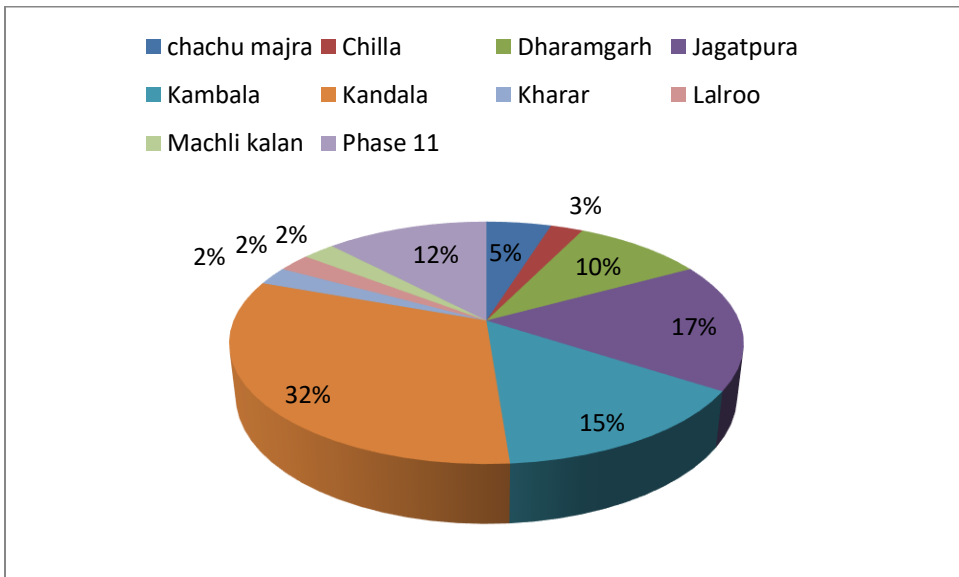
**Domain scores obtained by different age groups**



Graph 2.69

This pie chart shows the residing villages and percentage of workers from each village.

**Village**



Graph 2.7

## 2.4. Data Analysis and Inferences

### Graph 2.1

The question is aimed at giving an overall picture of the quality of life. The translation was like: "aap apni zindagi ko kaisa mante ho? Khush hal, dukh bhari, thik thak" In this question it was difficult to make the participants understand the meaning of QOL as explained by WHO. About 46% responded that their QOL is neither good nor poor. This may be because they didn't understand the question/they differently understood the question. About 36%(very good+ good) feel that their QOL is good and 18% feel that it is poor. This plot alone is inadequate to explain the inner dynamics of their lives. That's where the other 24 questions become relevant. From the responses to those 24 questions, we can find out those aspects of life about which they are satisfied/ dissatisfied.

### Graph 2.11

The question is about the general health of the participants. 49% say that they are satisfied with their health, 13% very satisfied and 8 % neither satisfied nor dissatisfied. The dissatisfied and very dissatisfied group makes around 30% of the population. This result tallies with the % score obtained in the physical domain(71%, Graph 2.37). All the participants who are above 50 years said that their health is either very satisfied or satisfied. This can be connected to the rumour being spread among the workers about the slashing of women workers (especially in public areas such as LHC, AB1/AB2, Admin Block. )as they are considered to have less capacity of work compared to male workers.

## Physical Domain

When transformed to 0-100 scale physical domain stands in the second highest position with a percentage score of 71.17%. In all seven questions belonging to the physical domain, the participants have scored mean scores above 3 out of 5. The highest mean score obtained is in the capacity to work which is followed by mobility. Most of the workers said that they do not experience physical pain that prevents them from doing what they need to do. And only a few of them take medicines regularly. A few of them suffers from low/high BP problem; some have back pain and pain in knees. Most of the women who belonged to the above forty age group had a problem in their eyesight. And they say it is because of the acid with which they clean toilet floor. They say that the fumes of this acid cause irritation in the eyes and respiratory tract. Once this acid spilt into the eyes of one of the working aunties and had caused serious problems.

I would like to add some experiences shared by the workers which I think will be relevant here.

1) *"She (pointing to another woman) has got a tumour in her brain. Doctors asked her for surgery. But she is not willing. Look at that box full of medicines. Every day we see her taking three or four tablets. Doctors say she cannot take all foods as we take. Sometimes she looks very weak."*

2) *"I have been working here for eight years. Once I slipped in the washroom and got my leg fractured. I had to take medication for three months. But I didn't get any insurance money for the treatment expenses."*

The workers complain that they don't get any privileges of ESI, because of which they can't claim for treatment expenses of accidents that happen in the workplace.

When comparing the physical health and well being of natives and migrants only a marginal difference is found, and same is the case of Sikhs vs Hindus. When comparing OBC with SC, the latter group shows a higher level of physical health and well being than OBC. Also, APL shows higher health status than BPL. Women in their fifties are more satisfied with their health than those in their 30's and 40's. This could be connected to their better psychological health

compared to other age groups. Generally, these elderly women seemed to be far more contented in their life than the other two groups which are reflected in their domain scores.

### **Psychological domain**

The lowest percentage score( 45.63%) obtained is in the psychological domain. Scoring for the question ‘how much do you enjoy your life?’ is found to be very low(2.68). Also, they have scored 3.12 and 3.41 respectively in the questions related to spirituality, religion, personal beliefs and negative feelings which stands in the 22<sup>nd</sup> and 23<sup>rd</sup> positions among the mean score values(out of 26). A few of the women who were obese expressed discomfort in the way they look. In the question enquiring about thinking, learning, memory, and concentration most of the women have scored above average, but I doubt whether this question was understood properly. Almost everyone showed high self-esteem which puts this facet in the sixth position.

On comparing the psychological health of natives and migrants, it is found that native workers(48.06%) outscore migrant workers(37%). Also in this domain, Sikhs score more than Hindus(47.86,40.24) and OBC scores more than SC (48.25,35.39). Being a member of the major religious community of the state might be giving the Sikh women greater advantage in psychological health than Hindu women. Also unlike Hinduism, Sikhism upholds the idea of gender equality in every sphere of life. This can be a contributing factor for their better psychological health. Looking at the scores of OBC and SC we find that there is a significant difference in the level of their psychological health which shows that the caste identity continues to poison the lives of people. When we asked the participants whether they want low caste women to be employed for cleaning toilets, a few of them responded that they would support such a decision. This points to the subcaste based discrimination existing among the workers. Women from economically backward class are happier and satisfied in their life than the other, the difference between the two is marginal though(43.79,47.23). From this information, one might infer that material abundance and wealth do not necessarily make people more happy and satisfied (10). Literate people show better psychological health than illiterate (49.95, 41.52). Age wise comparison shows that psychological health improves with increase in age.(30’s=41.07%, 40’s= 45.62%, 50’s= 58.8%)

Below given is a comment made by one of the workers when asked about how much she enjoyed her life.

*“Life is very good. We eat. We dress well. We work and we earn. What else does one need in her life?”*

### **Social domain**

Social interaction scored the highest with a percentage score of 73.66. Each of the facet in this domain- personal relationships, relationship with husband and Social support scored 4.05, 3.95 and 3.8 respectively. Comparatively high scores obtained in social support can be attributed to intimate bonding among the women developed in several years of working together. Many of the women are also neighbours and they travel in a group to the workplace and back to home in hired autos. The survey data come from women working in hostels, academic blocks, administrative building, and dollar building. They are not allotted recreation rooms in any of these places, and so they have established their own little ‘territorial patches’ in every building. In hostels, corridor in the fourth level (middle level) is mostly preferred; they also use other space if it provides extra benefits like infrastructure (unused bed/cot) and privacy. Such places serve as their resting place, a centre for chit chats, a place to keep their belongings, dining area, a place for afternoon nap and relaxation.

Between natives and migrants, the first group outshines the latter(74.25, 71.56) and between Sikhs and Hindus, those which excel are Hindus(72.66, 76.08). Comparison based on caste gives a stark difference in social interaction of SC and OBC where OBC is far ahead of SC with a percentage score of 72 and 57.76 respectively. Among APL,BPL classes, APL is better(76.32-APL, 71.36-BPL). Literates fall short by almost 4% than illiterates in this domain (71.9- literates, 75.33- illiterates). Looking at the age groups we can find that 30's and 50's stand almost at the same level (75.43-30's,75-50's)whereas 40's comes a little below(70.9).

## Environment Domain

Environment domain is the second lowest scored among four domains (51.68%). Drawing upon the mean scores obtained in each facet of the environmental domain, we can find that the working women have very less opportunity for recreation and leisure activities (mean score=2.17). In the light of this result the sociological concept of 'second shift' that is coined after Arlie Hochschild's 1989 book, becomes worth mentioning. Second shift refers to the additional unpaid work (mostly domestic labor and childcare) done by working women which leads to reduced leisure activities compared to men (13). From the field work and survey conducted what I have observed is that the responsibility of homemaking is mostly on their shoulders. They get only four paid leaves in a year. In a month they can take a maximum of four leaves which are unpaid. Due to all these factors, they get little or no free time and thus miss an opportunity for leisure activities. Here is what a worker says about her life:

*“Work here (dollar building) is more than that in hostels. Sometimes it is really hard to finish the cleaning work. My husband also works in IISER. We are paid 7960 rupees a month. From this 4000 goes for house rent. And now what's left? I need money for my children's education. If I have money I will be respected. Without it, no one cares for you. After four O'clock I work in the faculty house. Even then we are not able to fulfill our needs. There are so much tension and worries in life. I sleep only for three or four hours a night.”*

The lady here says that apart from the usual work in the visitor's hostel (dollar building) she also works in faculty houses. Long hours of work along with the responsibility to look after her children is causing her stress and thus affecting her psychological health.

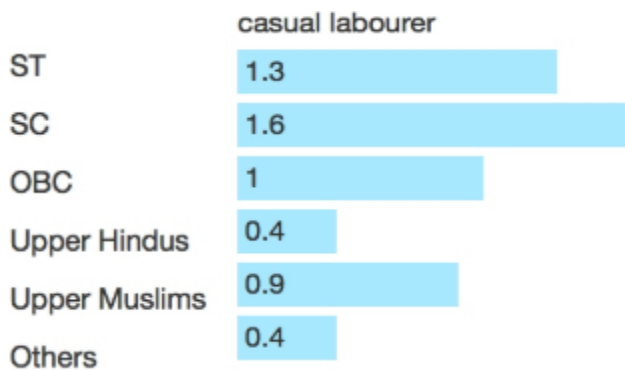
All women with no exception have expressed that they have very little financial resources. And the mean score obtained in this question is 1.41. These women rarely get an opportunity for acquiring new information and skills (mean score=2.63). Some of the villages they live in don't have adequate health care facilities which explain the score of 3.2 in this area. Almost all are more or less happy with the home environment and transport (3.66, 3.63) and they all feel quite a good amount of physical safety, security, and freedom (ms=4.05). When asked about physical

safety and security this comment was made by one of them: "I fear no one else other than god. We have to fear someone when we do something wrong. Otherwise, why should we be afraid of anyone?"

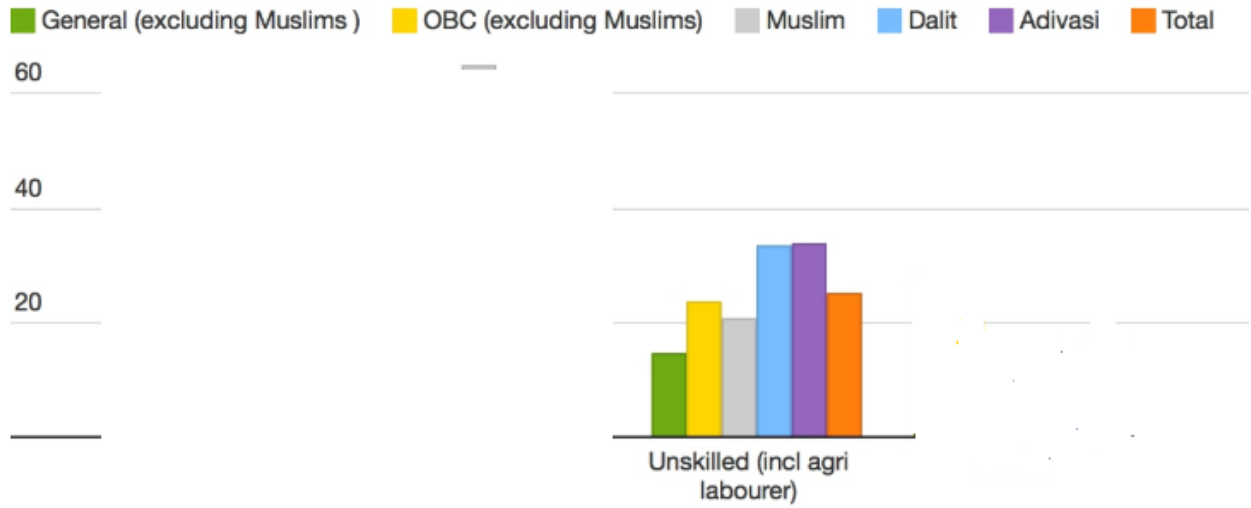
## 2.5. Other general inferences

SC category constitutes 88% of the total survey participants and 84 % of the natives. Punjab is the state which hosts the largest proportion of SC category (31.94%) and a sizeable number still live below the poverty line. (SC constitutes 61.38% of the total BPL families in the state. Data is from the survey conducted by the Department of Rural Development and Panchayats for rural areas in the year, 2002 and the State Urban Development Agency (SUDA) in urban areas in, 2004 ). Female literacy of SC is 58.39 %. The graphs below show that compared to other castes greater portion of casual labourers and unskilled labourers in India are from SC/Dalit category.

(14)



India Labour and employment report 2014



(15)

All these information put together along with the long history of caste oppression in India can justify for the backwardness of SC workers in psychological, social and environmental domains.

Native workers, when compared to the migrants, are doing better in psychological and social domains. Compared to natives major portion of migrants falls under the BPL category. ( 70% - BPLmigrants, 48% BPL natives). All migrants belong to Hindu religion. Cultural barriers like language; religion, customs, tradition and lifestyle along with economic factors might be acting as inhibiting factors affecting their social and psychological lives. Migrants are either from UP or Haryana. About 19% are from UP and 2% belongs to Haryana. These statistics agree with the net migration rate of these states, i.e. -1.94 for UP and 2.01 for Haryana.

Jagatpura, Kandala, and Kambala are the three villages where the major portion of workers reside. 30% of migrants live in Jagatpura whereas 43% of the natives are from Kandala. Census data shows Jagatpura has more population and less female literacy rate than the other two villages.



## 2.6. Narratives

*“My husband passed away a few months back. He worked as a gardener here. Every day he would come home drunk and would disturb me and my daughter. He left nothing for us. Now I need to look after my daughter. I need to get her married.”*

*"I'm a widow, and I live with my daughters who are in their twenties. People in my village will gossip about me if I talk with any man. Now I'm living for my daughters. I won't stay alive for another moment if I hear any kind of gossips about them (daughters)."*

*"I wake up at five in the morning. Cook food. Do other household works and at 8 reaches here (IISER). Works here till four. The workload is heavy. Sometimes I get tired. But I never stop working. Because this job provides my bread"*

*“Sometimes the supervisor comes for checking. He scolds me if work is incomplete. I feel really bad when he speaks roughly”*

*“I like this job. I like IISER. Students and other staffs are very nice to us. They respect us. But wages are very less”.*

*“Why are you writing down all these information? Will our wages be increased? Are we going to get gloves and shoes? Previously another student had also come to us asking such questions. But nothing changed. And you are also not going to bring any change. Since so many years we hear that our wage will be increased. But those promises remain promises.”*

## 2.7. Limitations of this study

It was difficult to translate and back translate the questions and responses. There are chances that the participants have not understood the exact meaning of what is being asked and that their responses are misinterpreted. This bias can be there in the results. However, to minimize the effect of this we have tried to explain the questions (not limited to the exact sentence) with different aspects that come in it. For example when we ask the participant " How meaningful you think your life is?" we explained the meaning of "meaningfulness" by saying that- "you might have an understanding of how life should be based on the religious beliefs you have, or based on certain self-inculcated values, learning through experience or based on other personal beliefs. So the question is whether you can live a life according to those beliefs". Even then there can be a gap of understanding.

And also the survey is carried out among 41 female housekeeping staff which comes around 75% of the total unskilled female workers(55 in total). There can be chances of sampling error but not much is expected as 75% is a considerably good sample size to lessen the effect of sampling error. However, this sample, by chance, may still not be a good representation of the total population. While comparing the domain scores across different subgroups statistical test for checking the significance of the result was not done. This also could be a pitfall.

There is no standard scale available against which we can compare the survey results as WHOQOL-Bref is so far administered only among small communities or groups and not among the whole population of a geographic boundary. Moreover, my sample only considers housekeeping workers who predominantly are from hostels, where they have a better political and social support from the students. In other areas of the institute, housekeeping staff faced more difficulties than in hostels. This sample, therefore, doesn't consider other skilled categories and work descriptions. Nor does it study the contractual labor landscape relationally across gender, departments, and skill categories. However, this sample can still lead us to the larger reality because it is concerned with the bottom-most layer of the working population.

# Conclusion

The housekeeping service providers in IISERM are violating the labor laws. Minimum wage as per government notification is not provided in some instances, and often the workers are not getting ESI benefits. The contractor is not following all the terms and conditions mentioned in the contract agreement. As these problems are no more unseen by the authority, changes may come about shortly. Results from the survey suggest that there are some areas that come under psychological and environment domains which are to be improved for a better quality of life. Quality of life varies among different subgroups. Nativity, religion, caste, economic status, age, and literacy are factors that influence the quality of life. But no general trend could be seen in the domain scores obtained in each subgroup.

It would be better if jobs like this which are perennial in nature could be made permanent, or at least the workers should be provided with minimum wages and ESI as per the central government instructions. This may help to reduce the burden caused by financial insecurity. A workers forum can be formed (already a union exists in the campus, but not much active among women), and weekly meetings can be called for, where they can discuss matters related to work life. Such group meetings can also create a platform for leisure activities. Students may take this opportunity for interacting with the workers through which political awareness can be created among female workers. Thus our institute might be able to create an environment conducive for relaxed work life.

# Bibliography

1. [https://en.wikipedia.org/wiki/World\\_population](https://en.wikipedia.org/wiki/World_population)
2. [https://en.wikipedia.org/wiki/Economy\\_of\\_India](https://en.wikipedia.org/wiki/Economy_of_India)
3. Nathan, Dev. "Structure of working class in India." *Economic and Political Weekly* (1987): 799-809.
4. [https://en.wikipedia.org/wiki/Working\\_class](https://en.wikipedia.org/wiki/Working_class)
5. [http://labour.bih.nic.in/acts/contract\\_labour\\_regulation\\_and\\_abolition\\_act\\_1970.pdf](http://labour.bih.nic.in/acts/contract_labour_regulation_and_abolition_act_1970.pdf)
6. Heather D (2012) Hill Welfare as Maternity Leave? Exemptions from Welfare Work Requirements and Maternal Employment. *Soc Serv Rev* 86: 37-67.
7. Ferriss, Abbott L. "A theory of social structure and the quality of life." *Applied research in quality of life* 1.1 (2006): 117-123.
9. WHOQOL-Bref user manual, 1998
10. Saxena, Shekhar, et al. "The WHO quality of life assessment instrument (WHOQOL-Bref): the importance of its items for cross-cultural research." *Quality of life Research* 10.8 (2001): 711-721.
11. WHOQOL-Bref user manual, 1998
12. <https://www.theguardian.com/science/2010/dec/13/happiness-growing-wealth-nations-study>
13. [https://en.wikipedia.org/wiki/The\\_Second\\_Shift](https://en.wikipedia.org/wiki/The_Second_Shift)
14. <https://www.livemint.com/Politics/ino3tfMYVsd6VVGUdWXB8H/The-many-shades-of-caste-inequality-in-India.html>

15.<http://www.ihdindia.org/ILERpdf/Highlights%20of%20the%20Report.pdf>

16.Nussbaum, Martha, and Amartya Sen, eds. *The quality of life*. Oxford University Press, 1993.

17.[https://www.researchgate.net/publication/317116936\\_Assessment\\_of\\_quality\\_of\\_life\\_of\\_AS\\_HA\\_workers\\_using\\_WHOQoL-BREF\\_questionnaire](https://www.researchgate.net/publication/317116936_Assessment_of_quality_of_life_of_AS_HA_workers_using_WHOQoL-BREF_questionnaire)

18. Sheethal MP, Harish BR, Vinay M. Assessment of quality of life among anganwadi workers of Mandya city. *Int J Med Sci Public Health*. 2015;4(3):386-8

-----

