

Exploring the dream pattern among the nightshift workers: A qualitative study

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Summary. Nightshift workers are increasing day by day, but many times, people forget the health and sleep effects caused by the nightshift. One such impact is the altered circadian rhythm, which is very important for proper functioning of the body and a good sleep. This altered circadian rhythm can have an impact on waking and sleep life of the nightshift workers. This qualitative study is to find the dream pattern among the nightshift workers and to find the frequency in dreaming among this group. Dreams are the reflections of the waking life and dream patterns are seen among groups sharing similar wake life experiences. This study is conducted with nine nightshift and nine dayshift workers, dream journal was used to collect the dreams from the participants. The frequency of dreaming is seen more among the nightshift workers. The dream patterns among both the groups are similar but there are dreams that make the nightshift group different from the dayshift. The dreams of the nightshift group includes mainly their friends and the feelings of being stuck/in danger. Also, their dreams were more fantastic in nature and have more emotional content. The study shows that sexual dreams are seen majorly among the nightshift group. This finding can be further used to conduct researches on the impact of nightshift on the sexual health and overall well being of nightshift workers and the reflection of the same in their dreams.

Keywords: Nightshift, dreams, circadian rhythm, sleep hygiene

1. Introduction

Dreams are different for each person and this made dreams fascinating and have caught the interest of man from very long time ago. Domhoff has proposed that dreams cannot be taken just as a sleep stage, but it has links to a person's wake life, thoughts, and behavior (as cited in Wee, 1999). He also has correlated dreams to age, gender and the culture of a person. There are so many studies that prove that there is a strong correlation between dreams and waking life. Emotional content of dreams of people after a trauma was studied by Goelitz (2008). The results showed that emotions and emotional intensity was more after trauma and the negative emotions like fear, anger, guilt etc were shown more. Results from the study of dream content in people suffering from different types of sleep disorders (Schredl, 2009) shows that the people who suffer from narcolepsy have more of bizarre dreams, people with sleep apnea experience dreams related to breathing and it was also found that the dream recall is more in people with insomnia and their dreams contain the current stressors in life.

Carr and Nielson (2015) says circadian influence causes 96% recall of dreams occurring in REM cycle and 89% of the total dreams occurring in NREM cycle during daytime

which is more than nighttime dream recall (80%, 43% respectively). REM sleep of daytime is more emotionally intense and bizarre than NREM sleep.

The studies on dream content conclude that dreams have a strong connection with the waking period and the dream content is influenced by the activities happening during the wake time. All the studies above show that there is a particular dream pattern for particular group sharing similar life events or phases.

Different types of profession demands nightshift, e.g.: call center, IT industries, drivers, nurses etc. People working in nightshift are supposed to work in the night and sleep during the daytime which is against normal circadian rhythm and this effects one's sleep and performance at work. The sleep of these workers is often fragmented during the day as the brain is more active in the daytime. People working in this shift find it difficult to have good energy at work as the body naturally tends to slow down at night and hence they work in the opposite manner the body naturally works. Shift work can affect circadian rhythms and causes circadian rhythm sleep disorder, shift work type (ICD- 10, 2015). Although due to modern sleep patterns and habitual nightshift, people slowly get adjusted to this schedule. Permanent nightshift workers also get adjusted to the change in circadian rhythm caused by their work, but body shows a tendency to go back to its normal style. No difference in circadian adjustment to nightshift is found between the two genders.

The studies on nightshift workers show that there is a relationship between shift work and sleep (Flo et al., 2013). A study was conducted on three different shifts (day, evening, and night- permanent and rotational shift) to find the relationship between shift-related sleep problems and work schedules using regression analysis. The results showed that the increased risk of insomnia among nightshift work-

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ers and the risk was more among rotational nightshift workers than among permanent workers but insomnia is more on rest days for the same group. An article on the impact of shift work shows 33% of shift workers sleep less than six hours and how their circadian rhythm, body temperature, and other body functions are affected by the shift work (Fuller & Bain, 2010). The quality and quantity of sleep diminishes because of nightshift work. It also says about serious disorders like gastrointestinal disorders, hypertension, heart diseases, women fertility, anxiety and depression, cancer, and reduces sensorimotor skills and coordination that are caused because of shift work. Both survey and EEG studies conducted on 25 male paper mill workers in night and afternoon shifts demonstrate that morning sleep after a nightshift is short and unrefreshing (Torsvall, Akerstedt, Gillander, & Knutsson, 1989). The study also showed that wakefulness at night time was affected by nightshift work.

Nightshift workers stay up during the night when their temperature and energy are low and body activities will be slow due to the influence of circadian rhythm. Their circadian rhythm is inverted because of their workstyle and this change could trigger a particular dream pattern. The disturbed circadian cycle of nightshift workers affect their waking period, it can influence their dream pattern. Katz and Shapiro (1993) stated that there is a strong correlation between dreams and medical illnesses. Any medical illness present, it is seen in the dreams. So, if any noticeable dream pattern, different from the day-shift group, is found among the nightshift workers, it will be useful in further treatment of the problem.

Freud (2015) stated that external and internal stimulus excite dreams, this research helps in finding whether this statement is true as the external disturbances are more during daytime, which will stimulate more dreams when they sleep. The frequency in dreaming among the both groups is compared to see if the dreams are more frequent among the nightshift group. If the probability in dreaming is more among the nightshift group, then influence of disturbances during sleep can be one of the reasons

2. Objectives

- To explore the dream pattern among the nightshift workers and find how it is unique from the dream pattern among the dayshift workers.
- To identify the frequency of dreaming among permanent nightshift workers.

3. Methods

This study uses qualitative research design to explore the pattern in dreams among the nightshift workers. As dreams are personal experiences of a person, the best paradigm that can be used is phenomenology. The sample of the study included nine participants each for nightshift and dayshift through snowball sampling from different multinational firms. Men and women who work in permanent nightshift (5 pm – 7 am) and permanent dayshift (9 am – 9 pm) with a minimum six months experience and got adjusted with the work schedule.

The participants were selected using the Pittsburg Sleep Quality Index (PSQI), those who do not take medications for sleep and those who mark their own sleep quality as very good or fairly good were screened in for the study. PSQI was used just to screen out the people. Mean age of both

the nightshift and dayshift groups was 27 and both groups had 7 males and 3 females. The SD of nightshift group is 1.9 and SD of dayshift is 1.4. All but three participants of dayshift work were unmarried.

Based on the dream journal maintained for 30 days; the dreams collected using the dream diary and the interview was analysed using thematic network analysis.

The coding and theme development are directed by the content of the data was done in an inductive way. The analysis was done based on the manifest content of the dreams. In depth dream analysis was not considered in the study.

4. Results

The themes of the dreams were found from the dream diary of each participant. Through inductive approach, using thematic network analysis, the basic themes were derived from the dream diaries of the nightshift and dayshift workers were put together and grouped to find the organization themes. The organization themes that can be included in similar categories were grouped and three global themes, “close knit people”, “dangers in life” and “desires and wishes” were obtained. These global themes include the different categories of dreams people recorded. The organization themes give the subcategories of dreams and the basic themes explain the general themes of dreams among the people as given in figures 1 and 2.

The first objective of the study was addressed by this part of the study which was to find the dream pattern among permanent nightshift workers and to find if it is different compared to the dream pattern of the dayshift workers.

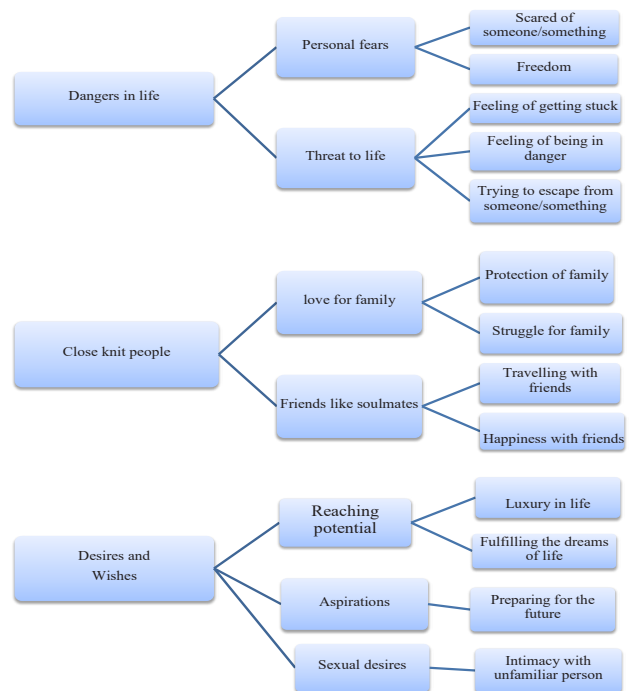


Figure 1. Global themes, organization themes, and basic themes of nightshift group

5. Discussion

The global themes derived are the same among the two groups. The global themes are close knit people, danger in life, and desires and wishes. The organization themes are also similar to the nightshift group except for the organization themes under the global theme, desires and wishes.

5.1. Close knit people

Human beings are always motivated to be a part of different groups. The primary group of humans is family and friends. In dreams too, people tend to see their closed ones. In this global theme, dreams about the closely related people in their lives are included. The two organization themes are love for family and friends like soulmates. Apart from being a main part of their lives, nightshift workers have more contact with these people in lives as their social contact is comparatively lesser than that of the dayshift workers. The basic themes under these organization themes are explained below:

5.1.1 Protection of family

The first basic theme under the organization theme love for family shows that one of the common themes among the nightshift workers is protection of one's family. As family is very important part of a person, many times the participants have seen oneself as protecting his/her family and always being for the family.

One of the participants has recorded, "I ended up escaping the whole scene on a super prepped café racer, after making sure my family was safe". (P 8, personal communication, August, 2018) As dreamt by the P 8, the family

was his priority and saved his family before keeping himself safe. Many participants have dreamt putting oneself in front for the protection of the family and being happy with the family.

"...My sister came besides me saying that the Juice what doctor said will cure dad's health. However, I was into thought that it will spoil his health instead. I threw it off to save my father...." (P 7, personal communication, August, 2018)

5.1.2 Struggle for family

Second basic theme seen under the organization theme love for family is struggle for family. In the dreams of few participants, a constant struggle for the family is seen to protect the family and this struggle is continuous. In many of the dreams reported, there is a struggle between the participant and something undesirable and there is a victory of the participant. This shows the desire of the participant to struggle for the family without a thought to give up and always want a victory in such situations for the happiness of the family. Fulfilling the wishes of the family, doing good for the family, and cherishing moments with the family was also included in this theme.

"My dad got hospitalized and I was talking to the doctors and I was fighting with the administrative staff for something related to his health issue" (P 7, personal communication, August, 2018).

Both the basic themes under the organization theme family are related as both the themes show the love and care for the family and the need for being for the family. The dreams about the family reflect the priority given for the family.

5.1.3 Travelling with friends

This is a basic theme under the organization theme friends as soulmates. Main social contact during the wake time of the participants is with their friends groups. Many dreams of the majority of the participants are about their friends and friends are almost seen as their soulmates and no nightshift worker has reported any negative feeling towards their friends in the dreams. A few of the participants have reported dreams in which they are travelling or going for rides or drives with their friends and reported as happy dream. This might shows how the participants value their friendship in dreams too.

"One day I went for a trip with friends. Suddenly some unknown person came and took me to his house. Then my friends were searching for me." (P 6, personal communication, August, 2018)

There are individual and family travel dreams reported by the participants but majority of the travel dreams reported include the friends.

5.1.4 Happiness with friends

This basic theme comes under the organization theme, friends as soulmates. As mentioned before many of the participants have reported dreams in which they are travelling with their friends. Under this basic theme, the data coded show how important friends are and how they influence



Figure 2. Global themes, organization themes, and basic themes of dayshift group

their lives and the happiness they with their friends. As discussed, the nightshift workers spend most of the time with their friends groups, and that can cause related dreams. Also, the participants of the study belong to early adulthood stage and all the participants are unmarried, which means friends form a major part of their lives and that can be a reason for friends as characters of their dreams.

"I went on an adventure with my friends to Gokarna. We enjoyed like it was the last day." (P 4, personal communication, August, 2018)

Both the above basic themes illustrate how important friends are in their lives and the nightshift workers see most of the dreams with their friends as a character in them. Friends are therefore seen al-most as their soulmates.

5.2. Dangers in life.

The second global theme is danger in life which covers the organization themes personal fears and threat to life. Personal fears involve all the fears experienced by the participants in the dreams. The organization theme, threat to life, includes the basic themes in which the threat faced by the participants in dreams or the probable threat felt by the participants. The Coded data gave rise to different basic themes under the two organization themes. The basic themes under these organization themes are given below.

5.2.1 cared of someone/something

This basic theme under the organization theme personal fears shows the fear experienced by the participants created by someone or something in the dreams. The degree of fear differs from one person to the other. Fears are commonly created among the participants by falling dreams, chasing dreams, feeling of loneliness in the dreams and punishment dreams. Falling and chasing dreams are universally common dreams which are occurring in the nightshift workers too. Every participant reported at least one dream related to fear. But the intensity of fear experienced is different among the participants.

"Felt like falling down from stairs, it was dark and I woke up frightened." (P 5, personal communication, August, 2018)

5.2.2 Freedom

This comes under the organization theme personal fears; it includes the dreams in which there is a need for freedom from someone or something and there is a struggle for the same. The struggle for freedom from some bondage or some slavery is seen in the dreams by the participants or other characters in the dream. Only three participants reported dreams related to this theme. The want for freedom is seen in the dream and it is seen important to the participants reported that.

"The dogs started biting me, I ask them why you are doing like this, they said because I dint give them freedom and it is killing them."(P 7, personal communication, August, 2018)

5.2.3 Feeling of getting stuck

The basic theme feeling of getting stuck falls under the organization theme threat to life. The data coded under this basic theme included the dreams in which the participant is facing some barrier or getting caught in some situations or positions. In some dreams the struggle to break free from the situation is seen and in some the participant is unaware about what to be done. The dreams in which the person is stuck in a traffic jam and work or wishes getting obstructed are also included in this theme. These dreams can be sometimes related to the work position or the shift work which is undesired by the participant as dreams can reflect real life troubles for problem solving as proposed by Cartwright in 1977 (as cited in Wallace & Fisher,1991).

"I went to a dress showroom. There I found one shirt which I was searching for very long time. But unfortunately that was already reserved by some other person." (P 6, personal communication, August, 2018)

5.2.4 Feeling of being in danger

This basic theme included in the organization theme threat to life, shows the dreams in which the participant is in danger or some other character is facing danger. It is different from the themes of feeling scared and getting stuck as sometimes there is a fight to come out of it or there is no action taken in the dream. At the same time the danger is faced with courage and there is no fear about the threat. Some dreams are reported in which the other character is in danger and the participant is feeling empathy or sad but cannot react in such a situation.

"I was sleeping, I felt something was moving on my hand or some body part of mine. Suddenly I felt something is going from my body, I am feeling someone is squeezing me"(P 7, personal communication, August, 2018)

5.2.5 Trying to escape from someone/something

This basic theme falls under the organization theme threat to life. In some dreams there is an attempt to escape from a situation which is scary or threatening according to the participant. Similar dreams were coded together and brought under the basic theme trying to escape from someone/something. Six participants reported similar dreams. Dreams related to this theme included chasing dreams, a dream in which there is a need for help, struggling to escape etc.

"I run as fast as I can but my legs feel heavy and I have trouble breathing. I try yelling my mother's name while running but for some reason I cannot seem to get any words or the cries for help get drowned by gasps for air the anxiety increases throughout the dream as my efforts to escape or to get help seem futile." (P 2, personal communication, August, 2018)

5.3. Desires and wishes

Sigmund Freud (2015) has described dreams as wish fulfillment. The dreams collected from the participants exhibit this property of dreams. A global theme derived from such dreams is desires and wishes. These dreams are mostly positive and the participants reported these as happy

dreams and they are willing to have such dreams as these make them feel satisfied. Three organization themes fall under this global theme are, Reaching potential, Personal life and Sexual desires.

There are four basic themes that fall under these organization themes and they are explained below.

5.3.1 *Luxury in life*

The first basic theme under the organization theme reaching potential is reaching potential. Dreams in which reaching one's potential and having a luxurious life falls under this theme. The participants have reported dreams in which they are having expensive cars, house and a rich life. More male participants documented such dreams than female participants. They mainly reported dreams in which they own luxurious vehicles. Dreams about materialistic life is more among the male participants and this can be influenced by their real life as the participants reported these dreams also reported that it was their aim to have such a life.

"I have a dream to buy a Nissan GTR. I dreamt of buying my dream car and fiddle with her en-gine." (P 4, personal communication, August, 2018)

5.3.2 *Fulfilling the dreams of life*

Participants of the study recorded dreams in which they are having their wishes fulfilled and having a happy life. Such dreams fall under the basic theme fulfilling the dreams of life which is in the organization theme, reaching potential. They have noted that such dreams have in fact made them happy when they got up the next day. In this theme, fall the dreams in which the participant is having a content and happy life, having better relationship, prizes, rewards at work etc. These dreams are less materialistic in nature and were mainly about internal satisfaction and peace of mind. These dreams have been reported by male and female participants equally.

"I was happy because I had my favourite dish for dinner which was beef roast." (P 6, personal communication, August, 2018)

5.3.3 *Preparing for the future*

This basic theme is in the organization theme, personal life. The theme is arrived from the dreams in which the participants reported about their marriage and having a new romantic relationship. There is a positive attitude towards marriage in the dream except one participant who reported negative feelings towards marriage. Females reported more dreams on future personal life than males. The participants reported "happy feeling" when they got up on the next day.

"Meeting the man of my dreams fell in love and got up married." (P 5, personal communication, August, 2018)

5.3.4 *Intimacy with unfamiliar person*

The basic theme intimacy with unfamiliar person falls under the organization theme sexual desires. The coded data under this basic theme shows dreams in which the sexual desires are satisfied. A few of the male participants recorded sexual dreams and majority of them reported sexual dreams

with unfamiliar partner. Sexual dream also falls under universal common dreams. It also falls in wish fulfillment.

As reported by one participant, "Sexual dreams with someone unknown. It is a repetitive dream." (P1, personal communication, August, 2018)

5.4. Uniqueness of the Dream Pattern among the Nightshift Workers

Dreams were collected from nine permanent dayshift workers to compare with the themes found from the dreams of the nightshift workers to see whether the dream pattern of the participants is unique. The global themes, organization themes and basic themes derived from the dreams of dayshift workers are given in the figure 2. The global themes derived are same as those of the nightshift group. The global themes are close knit people, danger in life, and desires and wishes. The organization themes are also similar to the nightshift group except for the organization themes under the global theme, desires. The organization theme under desires is wish fulfillment. The dream pattern of the nightshift group is similar to the dream pattern of dayshift group. The dreams of both the groups are about close knit people, different fears in life and the wishes and desires in life. Two groups under close knit people are friends and family. The basic themes show the theme pattern of the dreams and it differs to some extent between the two groups.

The family related dreams differs among both the groups differ; the nightshift group reported dreams in which they are more protective about their family and a struggle for their family. But the dreams of the dayshift workers show more they are more scared for their family, but there is no action taken to reduce the fear. The concern for the family is the same and shows similar feelings except for the need to protect and struggle for the family is more among the nightshift group. Dayshift group reported dreams more of family than friends'.

Friends have a major role in the dreams of the most of the nightshift workers. In the dreams of nightshift group, the dreams related to the friends were more positive and related to happy times in life. Dayshift group had some negative dreams about the friends, which were more of concern dreams.

The basic theme freedom among the nightshift group shows that there is constant need and struggle for freedom from someone or condition in which they are in. But that dream is reported by few nightshift participants, but the basic theme of feeling of getting stuck is reflected in many dreams of the nightshift group which is not seen in the dayshift group. The feeling of being stuck and being in a danger situation is more in the nightshift group which is unique from that of the other group.

Another unique dream theme seen among the nightshift participants is the preparation for future where there is a need for getting into serious romantic relationship and marriage. The need for commitment is seen in these dreams which are not found in the dreams of the dayshift participants of the study and there is a positive attitude towards the need for commitment. But these dreams were reported by the female participants of the nightshift group. In the dayshift group, two out of the three female participants are married. So it is unsure whether the uniqueness of this theme is valid.

The attitude towards work is more positive among the nightshift group. The dreams of dayshift group shows that there are negative emotions attached to work in the dreams. Majority of the work related dreams show positive and happy feelings among the nightshift group. This infers that the nightshift participants are more positive about their work and enjoy being at work than the dayshift group.

Under the basic theme scared of someone/something, few nightshift participants recorded dreams of punishment which is unique from the dayshift group. Even though, not many participants reported punishment dream in which the participant or some character in the dream is being punished for their deed, the dream is unique from the other group. But as not many dreams are there to support this theme, it is exempted from being a unique theme.

Basic dream, luxury in life, also makes dream pattern among the nightshift workers different from the dayshift group. The dreams of the group are more materialistic in nature and involve luxurious life. But such dreams cannot be accounted for any particular reason.

Another basic theme that sets the dream pattern of nightshift workers different from the dayshift dream pattern is intimacy with unfamiliar person. The sexual dream was not reported by even one day-shift participant but reported by many of the participants of the nightshift group. The sexual hormones are produced in humans more during the night when the nightshift group works, which forms the wake period of the group. As wake life activities influence the dreams, this internal activity happening during the wake period can be one reason for having more sexual dreams among the nightshift workers than the dayshift group. Sexual dreams were only reported by the male group and many studies show that there is a link between nightshift work and erectile dysfunction among men (Dotinga, 2017). The article also says that men working in nightshift are more prone to erectile dysfunction and urinary problems due to the disturbance to normal circadian rhythm. Studies also show that any medical illness present in a person has particular dream pattern and the dreams can be the evidence for particular medical illness (Katz & Shapiro, 1993).

These are the themes that make the dream pattern of nightshift group different from that of the dayshift group.

Table 1. Frequency of Dreams among the Nightshift and Dayshift Workers

Sl. No.	Nightshift Group (No. of dreams)	Dayshift Group (No. of dreams)
1	6	3
2	10	2
3	9	5
4	12	8
5	9	5
6	19	17
7	18	13
8	8	1
9	10	0

The dreams reported by the nightshift workers were more detailed, emotionally rich and more fantastic in nature than those dreams among the dayshift workers.

The member check of the themes was done and according to the participants the themes derived from data were matching the dreams. The member check was done for the credibility of the results.

5.5. Frequency of Dreaming among the Group

The second objective of the study is to find the frequency in dreaming among the nightshift workers and it is answered using the dream journal which was used to collect the dreams from the nightshift and dayshift workers. The total number of dreams was calculated using the dream journal. The table 1 shows the number of dreams occurred to each participant of both the groups and Figure 3 shows the graphical representation of the same.

The total number of dreams collected from the nine participants from the nightshift group of the study was 101 and that from the dayshift group was 54. There is a huge difference in the number of dreams reported by both the groups and the nightshift group reported almost twice the number of dreams of the dayshift workers. The maximum number of dreams reported by the nightshift group is 19 and the least number of dreams is six. The maximum number of dreams reported by the dayshift workers is 17 and the least number is zero. The average number of dreams accounted by the nightshift group is 11 (total no. of dreams/ no. of participants) and that of the dayshift group is 6. It is clearly seen that the frequency in dreaming is more among the nightshift workers than the dayshift workers. Carr and Nielson (2015) says that due to circadian influence, 96% of dreams in REM cycle and 89% of dreams in NREM cycle during daytime naps are recalled, which is more than the nighttime dream recall, which is 80% and 40% respectively. This can be a reason for number of dreams reported by the nightshift group is more as they can recall the dreams more easily than the dayshift group.

6. Conclusion

The dreams among the nightshift participants show that they are more positive about their work and enjoy being at

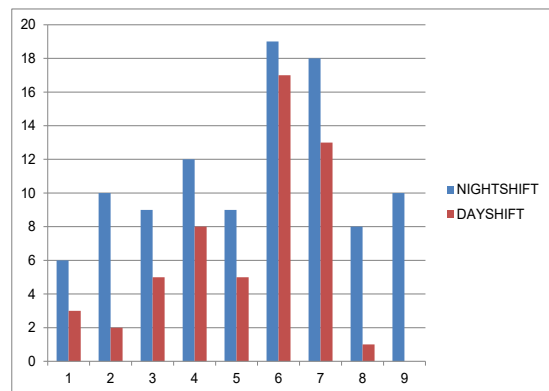


Figure 3. Graphical representation of the number of dreams among the nightshift and dayshift workers

work than the dayshift group. They reported more dreams on aspirations and satisfaction at work. Dayshift group has more negative feelings in work related dreams.

Punishment dreams and also future dreams are uniquely seen among the nightshift workers of the study. Future dreams involve marriage and romantic relationship, but the dreams reported under both the themes were less.

The emotional content and the intensity of dreams vary among both the groups. The dreams by the nightshift workers were more detailed, emotionally rich and more fantastic in nature than the dreams among the dayshift workers.

The frequency in dreaming is more among the nightshift workers is high and it is almost twice than that of the dayshift group. The reason for this could be REM rebound effect, or probability of more recall of dreams during daytime sleep.

They hardly have any sleep issues except when they have a disturbed sleep during daytime especially after weekends. Sleep-wake routine is same on the holidays too, except when they have some commitments on the next day. Half of the group follows sleep hygiene for better sleep and such participants have good sleep quality than the other participants.

All the participants of nightshift group in the study are adjusted to the sleep-wake routine but a few are unhappy with the nightshift. The anxiety and worries of daily life provoked dreams related to the anxiety, which are related to family, personal growth and fears. Themes under the dream perception by the participants and the dream themes are similar and it shows validity of the results. Work environment also have an influence on the dream pattern among the nightshift workers.

The study shows that the dream pattern among nightshift workers is similar to an extent to the dream pattern of the dayshift group but there are some themes that make the dreams of the nightshift group unique. The dreams of the nightshift workers are influenced by their desires, wishes, anxiety, stresses, and other life experiences. But sexual dreams are uniquely seen among the male nightshift workers and this can be influenced by the tendency of sexual dysfunction among the male nightshift workers. But, this cannot be confirmed. The frequency in dreaming among the nightshift workers is high and the dreams of the nightshift workers is emotionally intense and bizarre than the dreams of the day-shift workers. These are the major findings from the study.

7. Limitations of the Study

The study included the dreams collected only for 30 days; better study could be done with dreams collected during a longer period. As the study is on dreams, limitations were faced by the participants in maintaining an updated dream diary. Possibilities of not writing down the dreams, forgetting the dreams are expected.

All the participants of the nightshift group were unmarried and a few members of the dayshift group were married, this can cause difference in dreams experienced. As dreams are related to the unconscious thoughts of a person, the influence of the personality of each individual have an impact on the dreams.

8. Implications of the Study

There is no study done on the dream pattern among the nightshift workers who is having a different sleep habit. This

study not only studied on the pattern but also to know how often they dream.

Sexual dreams which are particularly seen among the nightshift group of the study can be used to learn about the influence on dreams by the sexual disorder, erectile dysfunction, which can be caused in men due to nightshift workers. The results of the study could be helpful in further exploration of sexual disorders among the men working in nightshift.

The more frequency in dreaming among nightshift workers can be compared to the REM rebound effect and the relation between the two can be explored. This will help in exploring more on the REM cycle and its influence on dreams.

9. Scope of Further Research

The same study can be done using quantitative methods like dream content analysis. This study was conducted among the multinational company workers of, further study could be done cooperating other nightshift workers like drivers, watchmen or police men. Further study can be done focusing on the sexual dreams among the nightshift workers and comparing it with the dayshift workers.

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