

Happiness and Impacts of Various Factors on the Happiness of Physicians Working in a Cancer Institute, North East India

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Objective: To identify how happy are the physicians working in an Oncology setup and how different factors influence the happiness levels of these doctors working in this challenging setup.

Materials and methods: This is an observational study designed to be carried out at a Tertiary Cancer Care Centre. The survey was conducted from 1st July to August 30th, 2023. Self-administered Oxford Happiness Questionnaire was used, which is a closed-ended questionnaire. Those who were not willing to participate and whose work/ course duration was less than 6 months were not included in the study. Stephen Wright scoring was used. A score between 1-2 was interpreted as not happy, 2-3 meant somewhat unhappy, 3-4 was for not particularly happy, 4 represented somewhat happy, 4-5 was interpreted as rather happy or pretty happy, a score between 5-6 means very happy, 6 meant too happy.

Results: Out of 93 study subjects, 54 were men (58%) and 39 (42%) were women. Of 93 doctors, 68 (73.1%) were happy. Of 68 doctors, a somewhat happy category was 31 (33.3%) doctors, followed by 29 (31.2%) being pretty happy, and 8(8.6%) doctors who were very happy. Twenty-five (26.9%) doctors were unhappy.

Conclusion: The majority of doctors working in an oncology set-up were happy with no difference in gender. However, men were more likely to be very happy compared to women.

Introduction

Happiness is an emotional state characterized by a feeling of joy, satisfaction, contentment, and fulfillment. Happiness is described as involving positive emotions and life satisfaction. In other words, happiness is an emotion where acceptance of the present environment with gratitude is involved. For centuries, happiness has been viewed as an essential component of human life [1]. Happiness can be defined as an enduring state of mind consisting not only of feelings of joy, contentment, and other positive emotions but also of a sense that one's life is meaningful and valued [2]. The primary objectives of research in psychology are to determine the relationship between specific individual and situational variables on the one hand and relevant job-related behavior of people on the other hand. Psychological tests are used for measuring and predicting basic human characteristics or abilities that are related to the capacity to develop proficiency in various works.

In this busy life, people are so engaged in their hectic life schedules along with monetary aspects as a result of which most of the population are suffering a low motivation in life. People are

questioning their existence as most people are not able to live a fully satisfied life. And they started believing that they would not become happy again. Psychological skill or testing plays a vital role in figuring out the problem and helping to deal with the exact problem. Likewise, Oxford's happiness scale will bring out the level of happiness and help to find a better solution.

According to the World Happiness Report 2021, India has ranked 139 in the world Happiness Rankings published in the 9th World Happiness Report. It was released in March 2021 and India's rank in 2020 was 144 [3]. Whereas Finland is the happiest nation in the world five times in a row. Keeping in mind the indexes of the World Happiness Forum, India ranks in the bottom 10 countries in the world which comprises various factors; economic, social, and political issues can be embedded within the aura of the research as these three aspects seem more and more impacting elements in any individual life. Going through different articles and journals, it was evident that the level of happiness among the doctors who are considered as one of the most exposed busiest burdened professions and the state of mind and the happiness level in these busy professionals go in the opposite direction. Therefore the researchers are very much interested in conducting research on happiness levels and factors influencing the happiness of the physicians working in an Oncology setup of a reputed tertiary cancer care and research Centre of North East India. A happy physician can render better service. In medical professionals, especially doctors, burnout may adversely affect patient care, physician retention, and physician well-being [4].

The sense of happiness has been conceptualized as people experiencing well-being in both thoughts and feelings [5].

Happiness's underlying factors are considerable from two dimensions: endogenic factors (biological, cognitive, personality, and ethical sub-factors) and exogenic factors (behavioral, social, cultural, economic, geographical, life events, and aesthetics sub-factors). Among all endogenic factors, biological sub-factors are significant predictors of happiness. The existence of significant differences in temperament and happiness of infants is an indicator of biological influences [6].

The study was conducted with the Research Question, How happy are the physicians working in an Oncology setup and how do different factors influence the happiness levels of these doctors working in this challenging setup? The novelty of this research is that no such happiness study among doctors has been conducted.

Materials and Methods

This is a an observational study design with objectives to assess the level of happiness amongst the doctors working at a Tertiary Cancer Care Centre and to analyze the effects of various factors such as age, gender, marital status, socio-economic conditions etc. of doctors influencing on their level of happiness

The study sample was the doctors working or undergoing any academic courses at Tertiary cancer treatment and research Institute irrespective of age, gender, and position. The doctors working at the center or perusing any academic course for more than 6 months were included in the study. After signing the written consent form study subjects have been enrolled for the study. Those who were not willing to participate and whose work/ course duration was less than 6 months were not included in the study.

Out of total population i.e. all the doctors in the Institute, 92 participants were taken as sample size calculated with 95% confidence level and 5% margin error. Where, N = population size p = sample proportion Z =critical value of the normal distribution at the required confidence level e = marginal error.

The formula used is:

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The study sample was the doctors working or undergoing any academic courses at Tertiary Cancer Treatment and Research Institute irrespective of age, gender, and position. The doctors working at the center or pursuing any academic course for more than 6 months were included in the study. After signing the written consent form study subjects have been enrolled for the study. Those who were not willing to participate and whose work/ course duration was less than 6 months were not included in the study.

Out of all doctors at the institute, 92 participants were taken as sample size calculated with 95% confidence level and 5% margin error.

Data collection commenced from 1st July to August 30th, 2023. The tool used for data collection was a pretested predesigned proforma based on the Oxford Happiness Questionnaire that was developed by psychologists Michael Argyle and Peter Hills at Oxford University. This is a good way to get a proper survey of the current level of happiness. This code can be used to compare to our happiness level at some point. It is a closed-ended questionnaire and the data was collected by the psychologists and counselors from Preventive Oncology.

Self-administered questionnaire method was used without any identity-revealing questions. The investigators contacted the study subjects and after explaining the objectives and motto of the research they also explained the questionnaire. Informed consent forms were handed over to the participants. After getting the informed consent signed, the investigators handed over the questionnaire to the participants and noted the convenient time and date when they could be contacted for the collection of the filled-up questionnaire.

The filled-up questionnaire was collected in a locked drop-in box to maintain the confidentiality of the respondents. The box was collected by the investigators under the monitoring of Project PI. This box was unlocked only after the completion of data collection by the investigators.

The Questionnaire consisted of 29 questions each carrying some points, also some questions had reverse scores. There are 6 responses (Strongly agree, moderately agree, slightly agree, slightly disagree, moderately disagree, strongly disagree). The participants were asked to answer all the questions but just select one response that applies to them.

The interpretation of the score by Stephen Wright was followed to interpret the results. A score between 1-2 was interpreted as Not happy, 2-3 meant somewhat unhappy, 3-4 was for not particularly happy, 4 represented somewhat happy, 4-5 was interpreted as rather happy or pretty happy, a score between 5-6 means very happy, and 6 meant too happy.

Chi-square test proportion tests and the percentage were used to understand the influence of different factors on happiness.

Results

Out of 93 study subjects, 54 were males (58%) and 39 (42%) females. 67 (72%) of these study subjects were married and 26 (28%) were unmarried.

From this study, as shown in Table 1, it was evident that most of the doctors in cancer care, i.e. 68

(73.1%) were happy out of 93 study subjects.

Happiness levels	Number	Percentage	Broader happiness levels	Number	Percentage
Not happy	1	1.1	Unhappy category	25	26.90
Somewhat unhappy	4	4.30			
Not particularly happy	20	21.50			
Somewhat happy	31	33.30	Happy category	68	73.1
Pretty happy	29	31.20			
Very happy	8	8.60			
Total	93	100		93	100

Table 1. Distribution of Study Subjects in to Different Happiness Categories.

Maximum numbers fall under the somewhat happy category, which is 31 (33.3%), followed by 29 (31.2%) being pretty happy, and 8 (8.6%) doctors were very happy.

25 (26.9%) oncologists were unhappy. In this category, 20 (21.5%) were not particularly happy, 4 (4.3%) were somewhat unhappy, and only one (1.1%) fell under the not happy category.

The difference in the levels of happiness among these doctors working in cancer care showed that happiness is significantly higher in comparison to unhappiness (95% Confidence Interval (CI) 32.3 to 52.7, $p=0.0001$).

Gender comparison showed no significant difference between the males and females. 40 (43%) male subjects were happy and 14 men (15%) doctors were unhappy. Whereas, 28 (30%) women were happy and 11(11.8%) women were unhappy. The very happy category showed 8 out of 54 (15%) males were very happy but in women out of 39, no women were very happy.

While analyzing extremes of happiness in males and females it was evident that there was not even a single female out of 39 (0%) who fell into the category of "Very Happy". In males, 8 out of 54 (14.8%) were in the very happy category (CI 3.35 to 26.58, $P=0.012$).

Out of 93 study subjects, 77 fall in the age group of 25 to 45 years and 16 to 45 to 65 years. From the age distribution, it was evident that out of 77, 54 (70%) in the age group of 25-45 were happy, whereas in the 45 to 65 years age group, 14 (88%) out of 16 fell in the same category of the happy group.

The chi-square test clarifies that there is no significant difference between happiness categories and age groups of the subjects. The comparison between the percentages gives an introspection that the older the oncologists, the happier they were.

As represented in Table 2, the investigators intended to find out if there is any significant difference between the happy and unhappy category in the married study subjects.

Level of happiness	Number	Percentage	Broader happiness categories	Number	Percentage
Somewhat happy	21	31.30	Happy category	49	73
Pretty happy	22	33			
Very happy	6	9			
Not happy	0	0	Unhappy category	18	27
Somewhat unhappy	3	4.40			
Not particularly happy	15	22.30			



Total	67	100	Total	67	100
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Table 2.

Forty-nine (73%) out of 67 married oncologists were happy as 18 (27%) were in the unhappy category. The percentage difference was 46%. The numbers in the happy married category in comparison to the unhappy married category are significantly high, as statistically found by the Proportion test (95% CI: 32.3 to 52.7, p=0.0001).

Out of 26 unmarried study subjects 14 (58%) were in the unhappy category whereas, 12 (46%) unmarried subjects were happy. The difference between happiness and unhappiness amongst the unmarried group is insignificant. The investigators could bring the interpretation from this statistical analysis that marriage had a positive impact on the happiness of these study subjects.

Married doctors whose spouse was a doctor were happier than those whose spouses were in other professions. Out of 67 married oncologists, 49 (73%) had spouses who were doctors whereas 18 (23%) had spouses with other professions.

Out of those with doctor spouses, 35 (71.4%) were happy and 14 (28.6%) were in the unhappy category. Using the proportion test the numbers of happy doctors with spouses with the same professions were significant in comparison to the unhappy numbers in the same group. This brings the interpretation that the numbers of happy study subjects with doctor spouses were significantly high in comparison to those falling into the unhappy category. In those with spouses with any other profession, more numbers were in the unhappy category. 10 (55.5%) were unhappy and 8 (44.4%) were happy. However, there is no such significant difference observed by statistical analysis. The effect of the working hours of the spouse on the happiness of the subjects was insignificant. Out of 11 subjects whose spouses worked for less than 6 hours a day, 8 (14%) were happy and 3 (5.26%) were unhappy. Of those whose spouse worked for more than 6 hours 12 (21.4%) were unhappy but 44 (78.5%). The difference was insignificant.

Out of 93 study subjects, the majority i.e. 55(59%) had an annual family income between 10 to 20 Lakhs, and 34 (36.5%) had a 20-40 lakhs annual family income. In the category of above 40 lakhs annual family income, there were only 4 (4.3) oncologists. In this study, investigators intended to analyze if money brings more happiness. In the category of 10-40 lakhs 25 (28%) were unhappy whereas 64 (72%) were happy. In the subjects with above 40 lakhs family income, none fell into the unhappy category. All subjects (100%) were happy and 50% in this category were very happy though without considering the income status out of 93 oncologists, only 8(8.6%) study subjects were very happy. The difference level between the happiness categories amongst the above 40 lakhs income group, was significant with the proportion test (95% CI:35.3 to 60.7, p=0.004).

Out of 67 married subjects, 49 (73%) were with children and 18 (27%) were without children. 77.5% (38) with children were happy and 22.4% (11) were unhappy. 14 (77.7%) without children were happy and 22.2% (4) were unhappy. In this study, statistically happiness categories are not affected by having children or not.

Duration of work in the oncology setup and the happiness categories seems to be not related to each other as most of the doctors were pretty happy in 6 months to 3 years duration as well as in 3-6 years, 6-9 years, 9-12 years and more than 12 years of working duration. There was no statistically significant relation between duration of service and level of happiness.

There was no significant relationship between the working hours of the spouse and the happiness of the study subjects 66% of doctors were happy whose spouse's working hours were < 6 hours and 78% of doctors were happy whose spouse's working hours were > 6 hours. 27.2% of doctors were unhappy whose spouse's working hours were <6 and 21.8% of doctors were happy whose spouse's working hours is >6 hours.

This study also shows that 84% (78) of doctors without any illness were happy and 16% (15) were unhappy. Also, 69.1% of doctors with chronic illness were happy and 30.9% of doctors with chronic illness were unhappy. No significant difference between chronic illness and happiness categories using the chi-square test.

Discussion

In this study most of the physicians working in oncology care center were happy irrespective of Gender, age or duration of work.

Maximum numbers fall under the somewhat happy category which is 31 (33.3%) followed by 29 (31.2%) being pretty happy and 8 (8.6%) study subjects were very happy. The difference between the happy and unhappy subjects differed significantly. In this research majority of the physicians rendering services to the cancer patients were happy. Few of the studies done across the world on health personals which depicted varied results regarding happiness status amongst them. Average to moderately high scores of happiness was reported in India, Romania and South Africa across different types of healthcare professionals [1]. In Iran, moderate happiness was reported both in 2014 among 252 nurses [7] and 2018 among 422 nurses [8]. In 2014, nurses reported higher levels of happiness among nurses with greater hardiness (the ability to adapt one in problematic life situations). Lower scores of perceived stress result in higher happiness scores among nurses, which was depicted by the negative correlation between stress and happiness scores [7].

In this study correlation of different factors with happiness levels were analyzed. The factors analyzed were Age, Gender, Marital Status, children, profession of the spouses and their working hours, family income, any chronic illness like Diabetes, Hypertension, Hypothyroidism, Hyperthyroidism, Cancer, others (chronic lower backaches, Hyperlipidemia, Migraine, Spondylitis etc.).

This study showed that gender had no effect on the levels of happiness considering all of happiness levels as a whole. But when the extreme levels of happiness were analyzed it was evident that the "very happy category" showed significantly male predominance in comparison to females in the study subjects where 15% males and 0% females showed to be Very happy. To mention here, in the extreme unhappy category i.e. "not happy category" investigators found that there was only one female (3%) when in the male counterpart no one was (0%) there in this extreme unhappy category. No female was very happy and no male was in the extreme unhappy category.

The significant difference in the extremes of happiness category in males and females needs more introspection. Relative declines in female happiness have eroded a gender gap in happiness in which women in the 1970s reported higher subjective well-being than did men. These declines have continued and a new gender gap is emerging -- one with higher subjective well-being for men [9].

Women do appear to be the most vulnerable gender, being adversely impacted by internal and external dynamics, with respect to what happens to men. Finally, social gerontology provides a significant evidence that at later ages women's well-being deteriorate more than men's one, for a complex set of causes that go beyond physical and psychical determinants, to include socio-economic and environmental factors [10].

In this study, number of happy married subjects is significantly high than unhappy married oncologists. In the unmarried subjects, there is no effect on happiness levels. Study found that married people, in general, are happier than ever-married people [11]. Studies also indicate that married men are happier than married women because they are more likely to receive emotional satisfaction from their spouses. In support of this view, it was found that men benefit more than women from marriage [12].

In this research there was no significant difference observed in the happiness levels amongst the different age groups. A study compared happiness between younger adults (aged 16-59) and those aged 60-69, 70-79 and 80+. Levels of happiness did not vary with age [13].

In another research, findings showed that happiness significantly differed across the three age groups. In all the three measures, elderly reported higher happiness than young adults and late adolescents, but no significant differences were found between late adolescents and young adults [14].

It was evident from this study that in married category majority study subjects were happy than the unhappy and the difference being significant statistically. Those whose spouses were doctors fell significantly into the happy category. In those whose spouse were in some other professions there was no significant difference amongst the happy and unhappy category.

Hypothesized, greater similarity between partners was associated with higher levels of marital satisfaction and lower levels of negative affect [15].

Some other Studies shows similar findings with this study where Married people (men and women) were happier than widowers, divorced, single and re-entered into the marriage [16].

Studies showed that marriage also had equal or worse health and mortality risk compared to those who were never married, divorced or separated, or widowed. Results further indicate that general happiness underlies much of the relationship between marital happiness and better health and longevity. The literature on the health and longevity benefits of marriage is well established, but results of this study suggest that individuals in unhappy marriages may be a vulnerable population [17].

Utilizing 41 black dual-career couples, investigation examines the contribution of 10 aspects of life, ranging from marriage to leisure time activities, to global life happiness. Regression analysis indicates that marital happiness and happiness with career are significant predictors of global life happiness. For both husbands and wives, marital happiness is the strongest determinant of global life happiness [18].

Relationship between the different income groups and happiness levels were compared and though majority of the study subjects were happy irrespective of the income category, when above 40 lakh family income group was considered the investigator found that significantly high number of study subjects were in the happy group and 50% were very happy. When all the study subjects were analyzed irrespective of their income category only 8.6% were in the very happy category.

Happiness and economic status of individuals found to be closely proportional in this research. In this research, happiness categories are not affected by having children. The study conducted by the Open University in the United Kingdom, researchers surveyed more than 5,000 participants of all ages, sexual orientations, and statuses. When they were asked to rate the quality of their relationships the childless couples were reported to be happier overall. Childless couples also reportedly do more to maintain their relationships such as spending more time together to talk or go out than the couples who have children.

Interestingly enough, the study showed that mothers were the happiest overall while childless women appeared to be the least happy. This is in stark contrast to the men with children who were proven to be slightly less happy than those who were without offspring. Also, fathers are twice as likely as mothers to claim a lack of sexual intimacy as the main thing they dislike about their relationships [19].

There was no effect of work duration in the oncology set up amongst the doctors under study. When it came to per day working hours of the spouse, there was no significant effect of the daily work

hour of spouses on the happiness of the study subjects.

Out of 93 oncologists, 68 (73%) subjects were without any chronic illness whereas 25 (27%) had chronic illness. Maximum doctors i.e 13 (52%) with chronic illness were suffering from Hypertension followed by thyroid anomalies i.e. 7 (28%). 4 (16%) Oncologists had diabetes and no one with coronary heart disease. 4 % (1) gave history of Cancer. 16 % (4) doctors had two chronic co-morbidities together.

In this study presence of chronic illness showed no connection to the happiness level of these study subjects. The happiness levels difference between those with chronic illness and those without chronic illness was insignificant. Study hypothesized that chronic illnesses would be associated with reduced general Quality Of Life, reduced happiness and elevated levels of depressed mood. In conclusion, in this study most of the physicians working in oncology care center were happy irrespective of Gender, age or duration of work. However, men were more likely to be very happy compared to women.

Acknowledgments

Statement of Transparency and Principals:

- Author declares no conflict of interest
- Study was approved by Research Ethic Committee of author affiliated Institute.
- Study's data is available upon a reasonable request.
- All authors have contributed to implementation of this research.

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