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Explaining the Physical Fitness Strengthening Factors in Employees in a Petrochemical Industry: A Qualitative Study

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Abstract

Introduction: Low mobility is one of the causes of chronic diseases in the society, especially the industrial community and industrial environments. Behavioral physical activity is affected by multiple intrapersonal, interpersonal, environmental and social factors. The purpose of this study is to explain the factors that enhance physical activity in the staff of a petrochemical industry. Method: The present study was qualitative exploratory and was conducted using purpose-based sampling. To collect information from the experiences of 20 employees of the Imam Petrochemical Complex, through an in-depth, unstructured interview and based on physical activity boosters Educational factors asked the model to achieve information saturation. Finally, qualitative content analysis method was used to analyze the data. Results: The results of the analysis of the findings in the main stage of the factors that strengthen the physical activity showed that the factors of behavioral enhancement were spiritual well-being, interactive interests, and the benefits of moral acceptability that determines the physical activity in the staff. Conclusion: The aforementioned amplifiers should be targeted at program design for physical activity. Identifying physical activity enhancers helps health planners to use the most appropriate methods and strategies to change the determinants of physical activity to enhance this behavior. According to employees, strengthening the benefits of physical activity in society, the workplace and the environment can be effective in their physical activity.

Keywords: Reinforcing factors, Physical activity, Petrochemical workers, Qualitative study

Introduction

Non-transmissible diseases account for a high proportion of diseases worldwide. Non-communicable diseases currently account for 23

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percent of the global disease burden, and it is expected that 60 percent of the world's bombs and 73 percent of all deaths in the world by 2020. Approximately 59% of all deaths and 43% of the world's burden of illness are due to noninvasive diseases. By the year 2020, it is projected to increase to 73% of the total deaths and 60% of the burden of diseases (STEPS, 2007)

The relationship between lifestyle and chronic diseases requires that evidence-based strategies be considered for improving behavioral risk factors such as healthy eating and regular physical activity in each community. Given the benefits of such strategies for employees, this stratum can be the target group of these strategies in the working environment. (Quintiliani, Center for Community Based Research)

Among chronic non-chronic diseases, cardiovascular disease is the most common cause of death in most countries of the world and is the leading cause of disability (Azizi, Janghorbani and Hatami, 2010; Azizi, Janghorbani and Hatami, 2010). Risk factors for cardiovascular disease, a combination of risk factors including overweight, diabetes and pre-diabetes (Paulweber et al., 2010) Disorders of blood lipids and hypertension (Commitee UK NSC, 2008; Britsh Cardiac Society, 2005) are defined. Physical activity is associated with a reduction in the risk of cardiovascular disease, (Faghri et al., 2008) various types of cancers, diabetes and obesity (Dunn AL and Blair, 2002; Ai et al., 2009), and hypertension and other chronic diseases (Olivera-Brochado et al., 2010; Plotnikoff et al., 2005; Robertson-Wilson, Lévesque and Richard, 2009).

Regular physical activity as a significant health promoting behavior can prevent or delay the occurrence of various chronic diseases and migraines. (Aghamolaei, Tavafian and Hassani, 2009) The determinants of physical activity are numerous and vary from society to society. (Batey et al., 2014; Manley et al., 2014) The low level of physical activity of employees is susceptible to skeletal illness, the pain of absenteeism and other negative health consequences. (Berqvist, 1995)

Also, the low level of physical activity among the staff leads to a lack of quality of life and a shortage of work-related health and short-term health problems, so employees need to have programs that increase their physical activity in the workplace (Pronk et al., 2004; Burton et al., 2005)

The strong scientific evidence for the past 30 years (1984-2004) has shown the importance of immobilization as an initial and independent risk for all deaths and the spread of common diseases (Tehrani et al., 2016). Regular physical activity is a global health priority for prevention is one of the diseases and priorities of public health (Owen et al., 2004)

The healthy human recommendation until 2010 and the general health guidelines of the international community is that all people have at least 30 minutes of average physical activity for most days and preferably all the days of the week. Despite these recommendations, the level of physical activity in many parts of the world It is distant from the desired level and has consistently decreased (Cerin, Leslie and Owen, 2009; Ishii, Shibata and Oka, 2010), as 60% of the world's population does not have enough physical activity for their own health (W.H.O, 2005). This is one of the reasons for chronic illness (Ronda, Van Assema and Brug, 2001)

It is estimated that 120-120 minutes of physical activity with moderate intensity each week significantly decreases cardiovascular risk factors (Hadi Tehrani et al., 2016). Most researchers believe that the most cost-effective way of treating chronic diseases may be to prevent them from occurring They are at the beginning. If people change their health habits, these diseases can be widely managed and prevented (Propheer and Van Maken 2008). Direct costs of low mobility alone account for approximately 2% and 2.4% of annual health care costs in the United States and Europe (Proper 2004).

Physical activity is a multifactorial behavior that is influenced by interpersonal, interpersonal, environmental factors (Huang et al., 2010; Pan et al., 2009; McNeill, Kreuterb and Subramanian, 2006) Several studies have identified barriers to physical activity: financial status (Nakkash et al., 2003) lack of stress, social support (Folta et al., 2008), and cultural barriers, such as the lack of specialized sports facilities for women (Farooqi et al., 2000) and environmental barriers such as inappropriate building environment, neighborhood uncertainty and Inappropriate water (Chow et al., 2009).

These studies did not apply health behavior theories to identify health problems, behavioral and environmental causes and their determinants. Theories provide valuable tools for understanding and solving a wide range of behavioral problems. There are many theories of behavioral health in scientific literature, each of which tries to explain why people behave or fail to behave (Noar, 2006). Therefore, in order to develop effective strategies for promoting physical activity with consideration of implications. The health of researchers should have a profound understanding of the factors affecting physical activity. (Crosby and Noar, 2011)

The PRECEDE model was used as a comprehensive and linear model of health promotion planning that has been used in different environments since the last 30 years. This model describes in eight stages the strategies and interventions for health promotion (Green and Kreuter, 2005). The PRECEDE pattern is more in the field of health education and health promotion It will be. This template is a logical model for analyzing. The determinants of behavioral factors are used (Viswanath et al., 2008)

According to the model, predisposing factors, enabling factors and predictive factors are effective factors on the environmental and behavioral implications of health outcomes. Among these, reinforcing factors include the appreciation of the behavior of a particular behavior, including individual responses, colleagues, friends, family, and donations. The purpose of this paper is to explore the reinforcement factors through qualitative study with a deep interview with the staff of the petrochemical complex in order to plan physical activity in the workplace.

Method

The present study was conducted exploratively and in order to achieve the experience of petrochemical workers in the role of behavioral enhancement factors, physical activity in the working environment and living environment was carried out through qualitative content analysis. The data was collected through an in-depth, in-depth interview with 20 responsible, administrative staff, product line and product engineer. Sampling was based on the objective and extracted from the shift workers to create maximum variation of samples. Participants entered the study through public call by health department according to the interest of the staff in the subject of exercise and physical activity in the study, and then each of the interviewees introduced the appropriate individuals to this study.

During the course of the research, it was sometimes necessary to refer to the contributor again to confirm the data or to collect more data. A total of 20 interviews were conducted to achieve the information saturation and the lack of creation of new data and meaningful classes with the participants. . After the implementation of the interviews, open coding began and then, by continuous comparison, the codes were classified based on similarities and differences, so that substantive and meaningful issues were created. In order to increase the accuracy of the study, four proposed criteria for qualitative research including acceptance, impact, reliability and transferability were used. In order to increase the acceptability of researchers, data analysis has been contributed and researchers agreed to ensure consensus between their viewpoints and contributors to individual surveys and controls, with multiple contributors being surveyed and individually controlled with several contributors as well as several professors it placed. In order to increase the impact of the data, participant selection methods with the maximum variety of workplace supervisors, physical activity or non-performance, responsibility or lack of use were used or based on the questions in the research process as well as the methods for collecting information such as interviews Memorizing, taking notes in the field and reminiscing in a concise way.

To increase reliability, although it was used with in-depth non-structured interviews to conduct research, it took a long time to conduct an interview and, moreover, conducted informal interviews with contributors, and, for uniformity in the data, questioned in various areas through The callback with the followers was followed up to examine the descriptive transactivity of the categories obtained with those who did not participate in the research, and their agreement with these topics was examined.

The interview was based on the educational factors of the PRECED model and continued until the saturation of the data. The duration of each individual interview varied from 60 to 40 cents. In the coding phase of this study, after recording each interview, it was first written on paper at the earliest opportunity and most of the time before the next interview was analyzed. After several accurate readings, the text was read to get a deep and correct understanding of it and to break into the smallest units of meaning (code). The codes first were subclassed (sub floors) of the pattern structures and then placed in reinforcement classes. The basis of coding the subclasses was based on the ecological and educational phases of the PRECEDE model (Green lw and kreuter, 2005). The validity of the data was carried out through the evaluation of acceptability, trust, adaptability and transferability. People was told about recording their voices during the interview and was explained and insisted that all information received was confidential. In the quantitative study, a physical activity determinants questionnaire was developed and its validity was evaluated. This research was part of a larger research project approved by the Ethics Committee of the Tehran University of Medical Sciences in the form of a doctoral thesis. The interviews took place at the participant's place and time, and participants were given the right to withdraw from participation in each stage of the study by receiving interviews.

A total of 20 employees from different posts of the petrochemical complex entered the study. Their demographic information is described in results. The results of the analysis of the findings in the individual health benefits, the role of key people in the work environment, the role of the family, the impact of the work on FB, and the positive corporate governance practices.

Behavioral Reinforcement Factors

The combination of healthy behaviors and healthy lifestyles necessitates the emergence of reinforcing factors as well as deterrent factors in their impact. Amplifiers play an essential role in the person's decision and decision to act or to maintain a current behavior.

Factors for strengthening the behavioral activity of physical activity can be explained through the benefits of physical activity:

The results showed that employees with limited physical activity, who have not been systematically and systematically practiced at the moment, as well as those who have already institutionalized physical activity in the field of work and life, have pointed to the role of the influencers of external health behavior. . One of the factors that strengthen physical activity in this study was to explain the benefits of physical activity and its role in two sub-classes of social health and individual health.

Social Health: This subclass, in fact, involves the social dimension and collective benefits of physical activity so that the staff referred to their good feelings in achieving these dimensions of health as follows:

A: Attainment of a sporting degree: the desire for excellence and improvement of the inner sense of every human being. Meanwhile, the sense of heroism and celebrity in society has always led to the promotion of the social status of individuals. In this regard, from the point of view of employees, physical activity has been accelerated by the acquisition of higher education and celebrity:

Job Benefits: The effect of physical activity on employee productivity and, ultimately, achieving organizational goals is one of the benefits that has led to the continuity of employees' physical activity:
"When I walk, I feel that I have a much better mood. I can be more responsive to my lord. I can do all my work safely and openly." (Tehrani et al., 2016) Also, doing work requires physical, mental, and psychological fitness that can be made possible by employees with physical activity:

"It feels like humans feel better and more responsive to their work" (Berqvist, 1995), because of the many hours of work in the work environment, it is becoming more uniform throughout the work environment. This situation causes pressure on employees. Another participant in the impact issue Mobility has stated:

"Mobility has an impact. It's a friendly atmosphere. We go out of pressure to get out of our way. We cry," he says, "we want to laugh more than we can to get it" (Robertson-Wilson, Lévesque and Richard, 2009) In terms of the impact of physical activity in the future and the pursuit of excellence, one of the participants points to the successful experience of their ping pong teammates:

"I give you a statistic. When I was a high school, 90% of the men who played for me are now a doctor.... They are a Doctor of Dental Practitioner." (STEPS, 2007)

Social support: Most employees felt the support and encouragement of their relatives, family (spouse, children or parents) and friends to do useful physical activity. They believed that when their family members did not support their physical activity, their motivation for doing that behavior was reduced. The point most employees felt was that the family only recommended them, but did not accompany them for physical activity or attending a sports class. Most staff, especially women, did not have to attend physical activity or participate in a sports class.

Some female employees also refused to allow their spouse to attend sports classes and walkways. "I was walking with one of the relatives for two months, and her husband would not let me go. I became alone. And I did not get bored again. If an Adam has a companion, well, it motivates him to go along. She's walking. She's talking.

Interactive Benefits: The subject in each interface is the role that people play when they interact and show each other appropriate responses. Collective physical mobility provides an opportunity to interact with the peripheral environment that participants have repeatedly referred to in this plan:

"For a very important man, what is his wife, and when I was 5 years old and had a history of working before I got married, I said," Go to your colleagues and see what kind of people are. "" Mind is easy. I'm morose myself. "(Paulweber et al., 2010) There is also a successful interactive dialogue with colleagues after a physical movement: "The person who is exercising and the person who does not exercise is different." The morning the lady says, "Hi ... but I always say good morning, I'm giving a spirit to the kids" (Paulweber et al., 2010)

One of the other benefits of physical activity, expressed by the staff, is to become famous in the field of work and cooperation and engagement in the performance of duties:
"In the context of the Cultural-Sport Committee, you know a lot about the cognition that you will be able to achieve the goals of an organization" (STEPS, 2007) The opportunity to be together and to have friendly conversations is one of the benefits of collective sports and physical activity, which is referred to by Mrs. and Aqa's staff: "The philosophy of being nicer and happy is to be laughable, let's have fun!" (STEPS, 2007)

Economic Benefits: One of the benefits of physical mobility is helping the family's economic situation. Employees who are physically active and seemingly capable of being able to supplement, in addition to obligatory shifts, can contribute to the economic situation of their families.

"It gives women a glimpse of the idea that if they play sports, their health brings family happiness and makes a family income, and family income will make the family more comfortable." (Azizi, Janghorbani and Hatami, 2010)

Attention to the effectiveness of investing in sports teams is one of the factors that attracts people into physical activity in sport:

"Near our blood, there were two sports clubs that also invested in sports, especially football, we learned from soccer, we went to football" (Azizi, Janghorbani and Hatami, 2010)

The benefits of moral acceptance: In traditional societies, attention to ethical acceptance and the attachment to the values approved by the community is one of the factors driving people to strive for behaviors that lead to these values. It is a long history to pay attention to the heroic spirit and reverence of the heroes in our country, and this value has remained to this day. In this way, it is expected that athletes will be less involved in crime and unlawful conduct. Another contributor will explain this situation as follows:

"Man as his soul is smeared with sports, many of the negative issues of society are far from impacting when you are involved in a cultural internship of all the negative thoughts of God and those who are forgiven and may well be in a bad way. Because I see my athlete is a sportsman. One does not do the work of his soul and his body differs from the rest. He does not smell his own. Holds his own limit. He says that my athlete should not do this. I do not have to. I do not go here. I do not have to do it. I see a moral framework. You have time to see a boy only. It's bad to be stuck or addicted Chances are (Paulweber et al., 2010)

Individual health benefits = According to the human body itself, it is an obvious example of systemic thinking and system action. In fact, it is not possible to separate the various dimensions of health. Human is a "unitary identity" and all health interactions in this "identity" is done. Individual health benefits under the categories of mental health benefits include health benefits and mental health benefits.

Benefits of Physical Health: Physical health is one of the most common dimensions of health after physical health. The most common dimension of health is the physical dimension that can be more easily measured than other dimensions. Signs of physical health in one person are: good and normal appearance, proper weight, adequate appetite, comfortable sleep, proper organ, synchronous body movements, normalization of pulse rate and blood pressure, and appropriate weight gain at age of growth and constant weight gain at higher age. An overwhelming majority of participants had noticed the physical benefits of physical activity and stated:

"Exercise greatly influenced me that my body had no illness before 40 years of age, since I was 40 years old and did not continue to work professionally, I never felt sick and the cold was over 40 years old." (Manley et al., 2014)

- I liked it. I was interested in the appearance of the right person. It has a shape, well, for health (Faghri et al., 2008)

I'm telling you that your heart is bigger than ours, like my colleague, who spoke so hard on my step upstairs so I say to you why do not you get a diet (Dunn and Blair, 2002)

I see 100% of the children see when they see me especially in the lounge. I see a lot of progress in this movement. I see that those who do not exercise do not have blood pressure, glucose, urea, fat, and I really like that they are younger than theirs. But, unfortunately, pills I have not had pills so far. My experiments are normal (Plotnikoff et al., 2005)

It's important to maintain the appearance of the body so that the staff sometimes looks beautiful looking more than healthy, and they are ready to have physical activity for this reason. The partner says, "She was interested in high school early, I entered the administrative system, just because of the type and style of appearance it was important to now, genetics and fatty matters that are not healthier. SHAPE and the thing that we seem to be dressing would follow this story (Azizi, Janghorbani and Hatami, 2010).

Occasionally, the status of job descriptions also required an employee to be in a sedentary position and its effect on the body was evident. Contributor says: Just because I was not in a job and I was not in the job, the working conditions were different. I got behind the table and wrote the documents. manuals. I took care of myself and did not do any work so I walked around and drove two hours to three then I was tired of my boss giving me something to say that now I had to do it. Naturally, I was far away from sports. After a while, I felt how much my exercise was affecting my body.)

Motivation to obey: Most staff felt that family recommendations (spouse, children and parents) or health workers did not care much about them for physical activity and did not do it. Of course, most of the staff who took the prescription of a physician prescribed the physician's instructions in this regard and followed it, but they were less skilled in doing physical activity. "Unfortunately, our nation is a nation of medicine. It's like taking medication seriously; it does not take diet and exercise and other things seriously. They believed that they were the only way to control any disease.

The benefits of spiritual health:

Mental health benefits: Psychological dimension: It is more difficult to measure mental health than physical health. Here, there is not only no mental illness, but the power to adapt to the environment, having an appropriate response to life's problems and incidents is an important part of mental health. Spiritually, having perfection, morals, having a goal in life is a sign of mental health. Symptoms of mental health include: adaptation of the individual to himself and others, fair judgment in dealing with issues, having a critical attitude and having an adequate response to problems. The mental health benefits were also explained by the participants as follows:

"I ride a bicycle, I help you psychologically mentally" (Burton et al., 2005)

I have to say that I have to be upset this few days there, so it's very good to make you more joy and more joyful. Adam's feelings make him feel more cheerful (Berqvist, 1995)

I had a lot of internal energy, for example, I am very active now, I realize that I was very active when I was a psychologist. I realized that I was too active. I had so much energy that I had it. I was getting this energy. I was gassed at my hands. Sometimes I was gasping. I was straining. I was bruised. My flesh was tightened then I had to be drained (Olivera-Brochado et al., 2010)

Behavioral outcomes: Workers who have experienced positive experiences (such as weight loss, control of sugar, fat and hypertension, pleasure, feelings of vitality and happiness, reduction or disappearance of symptoms) with physical activity, are more encouraged to They did it. "Experiences that they are doing; they arrange a walk for a month, they feel their weight, their fat content or their weight, they are much more eager. Some employees who experienced an unpleasant feeling like pain did not do that again. "I walk on my knees, my legs and my legs. This pain makes me sick (a 47-year-old woman with blood lipids)

The benefits of moral acceptance

Addressing physical activity and athleticism as a consequence of the worker's physical activity and being an athlete in the wider colleagues and even the indigenous community of life place a kind of moral acceptance that can prevent the absorption of cases in conflict with the community. The surveyed staff believed that fitting in a moral framework would strengthen the trustworthiness among colleagues and their friends. However, one of the sports abilities is that as a place to cultivate a set of ethical virtues that accompanies the health of the body. Through sports and games, people can be trained in how to pursue their goals and use socially accepted ways to achieve them.

Conclusion

The purpose of this study was to explain the factors that strengthen the physical activity of the employees of a petrochemical industry in the form of one of the three main categories of the educational phase of the PRECEDE model, consisting of predisposing, empowering and reinforcing factors. The results of this study showed that factors such as the physical activity benefits in individual and social health were one of the most important factors in the physical activity of employees and was confirmed by a large part of the staff. The Xinx study in China also showed that most participants fully agree with the benefits of physical activity. In the dimension of social health, the tendency of man to be seen and considered is always the lever of his movement towards the behaviors that make this goal possible. In the meantime, the business benefits of physical activity and the outcome of organizational productivity were explained by the participating staff. A meta-analysis of 56 studies in the time period of 1982-2005 showed that measures to improve the health of the workplace reduced the absence of health benefits and led to employee productivity. (Chapman, 2005)

In a study conducted by Matthew Watts and Chad Harris, more than ninety percent of the people tested had agreed that exercise contributes to their productivity at work. (Mathew Wattles and Chad Harris, 2003)

Jacobson, in a study on hospital staff, found that the role of exercise in controlling pain was much more effective at home than colleagues in the workplace (Jacobson et al., 2017)

The understandable point that was found in the discovery research was a large percentage of employees who considered the types of physical activity to be healthier, but were less satisfied with doing it. Physical boosters were more prominent in students' knowledge. And did not experience more physical activity at the stage of physical activity. Based on findings from employee experiences, social health benefits are physical activity in terms of job interests and productivity through pay benefits such as higher scores in individuals with regular physical activity, diverse physical activity with neighborhoods, weekend routines and competitions Families by awarding cash awards aimed at enhancing the level of interaction and, subsequently, promoting physical activity, identifying successful examples of physical activity and sports as the indicator staff with the spirit of reverence for activists and athletes, and ultimately employees who according to the Center for Occupational and Center Medicine Behavioral counseling on physical, mental health And higher spiritual are introduced and honored to be the highest authority.

The findings of this study showed that non-infertility is one of the behavioral factors associated with cardiovascular risk factors. The determinants of this behavior that needs to be corrected include individual factors (predisposing factors) and environmental factors (social environment including employees and families, and physical or structural environments including availability and access to resources, rules and policies, and new skills). Self-efficacy, perceived barriers, physical activity skills, and social support were among the strongest predictors of physical activity. Identifying these determinants helps health planners to identify the appropriate methods and strategies to modify these determinants and reduce inactivity in order to improve the metabolic risk factors and prevent cardiovascular diseases. Choose vascular. Because the most immediate effect of an intervention is on specific behavioral determinants and environmental conditions. At the end of the study, with limited limitations, such as the researcher in the industry, the chemical industry was conducting qualitative research in such a way that employees tended. There was little explanation for the events of the working environment, which was one of the mother country's industries. Specific conditions require an extra effort to explore and categorize the true experiences of the participants.

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