A Sociological Study of the Joint Effect of Work Alienation and Job Satisfaction on Workers Depression in Industrial and Service Sectors of the City of Tehran

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Abstract: The general goal of this article is twofold, First, based on theoretical and empirical foundation of psychiatric disorders this study investigates the association between depression disorder and several variables which are assumed to be more prevalent determinant and predictor of depression disorder in a sample of workers in the city of Tehran. In doing so, we developed six hypotheses related to the association between depression disorder and job satisfaction, work alienation, type of work place, gender and age. Second, we employed the path analysis to depict the networks of causal relationships among several variables (job satisfaction, work alienation, work commitment, education, religiosity, age, and social capital) as independent variables through which they cause dependent variable (depression disorder). A survey research was performed on data obtained from a total of 234 workers through a disproportionately stratified sampling. The sample was recruited from 52303 employees of industrial and service sectors in the city of Tehran. Questionnaire and structured interview schedule were used as the principal techniques of data collection. The analyses are computed using SPSS version 16.0 software. The Multiple regression and path analysis are utilized to establish causal relations between and among the proposed variables. The empirical results regarding hypotheses testing show that: job satisfaction inversely related to depression disorder; work alienation is directly associated with depression disorder; the correlation between job satisfaction and work alienation is significant; and depression disorder of respondents vary by age. Based on the statistical results of path analysis, it could be concluded that depression disorder are more prevalent among workers who are not satisfied with his/her job, are alienated from his/ her work, have lower education, have lower social capital, are less committed to his work, do not participate in religious rituals and are either young or old.

Keywords: Depression Disorder, Job Satisfaction, Work Alienation, Work Commitment, Religiosity, Social Capital, Age, Gender, Type of Work Place.

Introduction

Studies of depression in working class indicate that negative life events, addiction, discrimination, frustration, alienation, job dissatisfaction, lack of social support and the like are significant predictors of depression (Zuckerman, 2008, Taylor et al. 1991, Black and Markides, 1993, Glantz and Hartel, 2002). Several investigators have shown that the feeling of powerlessness as a type of alienation and job burnout are related to depression (Maslach and Karger, 2001). The above studies document relationships between work alienation and job dissatisfaction with rates of depression in workers of different economic sectors. Moreover, population - based epidemiological studies have verified the clinical observation that alienation (estrangement) disorders are frequently comorbid with job dissatisfaction disorders in working class (Cohen et al. 1995, Greenbaum, Foster - Johnson, and Petrila 1996). Additionally, some studies have in fact shown that the majority of individuals diagnosed with one type of disorder will also meet diagnostic criteria for the other type. The high prevalence of this co-occurrence has many implications, because comorbid individuals have more severe psychosocial problems. The population - based National Comorbidity Survey (NCS) found that 41.4 percent of those

1 The present article, is based on and extracted from the findings and results of a survey research conducted on the psychosocial problems of workers in industrial and service sectors of the city of Tehran in 2015.

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with a high level of work alienation and job dissatisfaction also had a major depressive disorders. Several studies have also found an association between depression and drug use disorders (Bukstein, Glancy, and Kaminer, 1992). Despite the vast literature on the subject in Western Europe and the United states, the relationship between work alienation, job dissatisfaction and the psychiatric disorder of depression of workers in Iran as a developing society has not been examined. Thus, there is relatively a few knowledge on the association between these variables. Consequently, it is difficult to compare and contrast the state of work alienation and job dissatisfaction and their joint impact on the psychiatric disorder of depression in Iran and developed countries. Moreover, several features shared by present scales of depression, work alienation and job satisfaction raise questions about their measurement value in comparative empirical research. For example, all scales have been developed and tested primarily in western societies, and we lack information on whether they provide meaningful measurement in developing countries. In addition, the resulting item differences raise the question of whether the scales are truly equivalent. To what extent do scales of work alienation, job satisfaction and depression measure a common construct rather than different ones for each scale? And finally, there is little evidence that the above mentioned scales are reasonably valid and reliable. To evaluate the meaningfulness and validity of scales. It would be beneficial to test them in a different context and thereby develop reasonably equivalent, valid and reliable scales of work alienation, job satisfaction, and depression. With these in mind, the present article, based on the findings and results of a survey research conducted on the psychosocial problems of workers in industrial and service sectors of the city of Tehran, attempts to depict those parts of the research findings that shows the results of testing the association among work alienation, job satisfaction and depression of workers.

Theoretical background and hypothesis development

Concept of Alienation

The meanings and definitions of the term in the vast literature on the subject are many, varied, and in some cases conflicting. Most of the social and psychological definitions of the term are derived from Durkheim's concept of anomie. For Durkheim alienation (Individual anomie) is "states of mind which accompany social disintegration: feelings of normlessness, powerlessness, meaninglessness - feelings that frequently lead to suicide: 1 Robert Merton has defined alienation as "the state when social and cultural structures are in conflict or when the individual is in conflict with the proscription or prescriptions of the structure:" for Erich Fromm alienation means a mode of existence in which the person experiences himself as an alien. He has become, one might say, estranged from himself 2. Kenneth Keniston defines alienation as a ‘response to major collective estrangements, social strains, and historical losses in our society, which first predispose certain individuals to reject their society, and later shape the particular ways they do so 3. G. Duncan Mitchell defines the term as ‘a socio- psychological condition of the individual which involves his estrangement from certain aspects of his social existence 4. For some scholars, alienation is an individual feeling or state of disassociation from self, from others and from the world at large 5. As Josephson and Josephson have pointed out, it is used to refer to an extraordinary variety of psychosocial disorders. Including loss of self, anxiety anomie, despair, depersonalization, rootlessness, apathy, social meaninglessness, isolation, pessimism, and the loss of beliefs or values 6. Political alienation is defined as the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes or reinforcements he seeks. In other words political alienation involves the alienated person's perception that he does not have the ability to influence decisions in the political area that have a significant impact on him. His perception of the rules

3. Erich Fromm, The Sane Society (Holt, Rinehart and Winston, 1955), p. 120.
4. Keniston, Young Radicals, P. 204
5. G. Duncan Mitchell, A Dictionary of Sociology (Routledge and Kegan Paul 1988), pp. 4-6
of the game and the operation of the system are such that he believes that he has no role in the control of his political destiny. ¹

Social alienation is defined as a feeling of separation from the group or of isolation from group standards. The usage of the term has been most common in descriptions of the intellectual role, where writers refer to the detachment of the intellectual from popular cultural standards. For example, according to Melvin Seeman's definition, this type of alienation refers to 'the assignment of low reward values to goals or beliefs that are typically highly valued in the given society' ². Thus, the individual who assigns low values to goals that generally are valued highly would be rejecting society. That is, the individual who wishes to become an isolate simply withdraws. This, it is assumed, can done either through a process of physical withdrawal (e.g., becoming a hermit) or through the withdrawal of the power of society (e.g., a bethink attempting to show that society has no hold over him), or in some cases, through psychotic withdrawal.³ Due to these different connotations, conceptions and explanations of the term alienation, I. S. Kon has suggested that for 'the concept of alienation to be useful in research or theoretical development, it needs to be made specific by answering three basic questions: (1) who is alienated? (2) From what is he alienated? And (3) how is the alienation manifested? ⁴ However, others have argued that the concept of alienation requires specification in at least four respects: (2) focus - alienation from what? (2) Replacement - what replaces the old relationship? (3) Mode - how is the alienation manifest? And (4) agent - what is the agent of alienation? ⁵

Work Alienation
The work theory of alienation is generally traced to the writings of Karl Marx⁶. Work alienation according to Marx, is a consequence of the capitalist system because the product of labor becomes something external, independent of the worker. It faces him as an autonomous power. Thus, the life which he gave to his product now opposes him as something alien and hostile. Marx concludes Work, therefore, is not part of his true self but outside of it⁷. Following Marx an American Sociologist. C. Wright Mills, states that alienation in work means boredom and the frustration of potentially creative efforts, of the productive sides of personality⁸. Skeptics could object that there is not much to the allegedly valuable feelings, dreams, and creative powers of many people, that many are more inclined to enjoy than to create things, and even that quite a few people are more boring than their work.

However, the boredom of work and the alienation from work, which is the cause or the effect of the boredom, are not merely a personal phenomenon which can be viewed with deep compassion or slight derision but an important social, economic, and political phenomenon which seems to threaten the very foundation of bourgeois society. Work in America, published by a study group of the United States Department of Health, Education and Welfare in 1973, warns against the dangers of job alienation, which affects not only the blue-collar worker but all occupational levels up to and including managers. According to this thorough investigation, job alienation borders on despair. The discontent of dehumanized workers causes mental and physical sickness, low productivity, increasing absenteeism, wildcat strikes, industrial sabotage, and high job turnover rates. The growing dissatisfaction with work also leads to drug abuse, alcohol addiction, and delinquency.⁹ Work in America could be paralleled by a work in Britain, work in Germany, and so on. A German publication, for instance, states that an alarming increase of mental disease in Germany can be attributed to the modern production process.¹⁰

⁷ I. Fourllicht, Alienation, 1978: 141
¹⁰ “Job Monotony Causes Mental Sickness” in German Tribune. Hamburg, September 6, 1973. P. 12
In 1964, Blauner published a study of the printing, textile, automotive, and chemical industries. He found that the automobile assembly line intensified all dimensions of alienation. Thus in this extreme situation a depersonalized worker, estranged from himself and larger collectives, goes through the motions of work in the regimented milieu of the conveyor belt for the sole purpose of earning his bread. Job alienation, Work in America suggests, could be reduced if workers would participate in different, perhaps in all the phases of production, if they would train for other jobs, if they would be given more responsibility and autonomy, if they would be interested in the result of production by being given a share of company profits. These proposals are not entirely new. They correspond, for instance, to suggestions made a decade before Work in America by the French sociologist Friedmann, who advocated frequent transfers from one job to another and work rotation, as well as more initiative and responsibility by the workers. To some extent, the proposals made in work in America are also in line with the theory of young Karl Marx, who saw in the division of labor (Specialization) and in private property (exploitation) the causes of alienation. The reforms with which some industrial corporations in the United States (A. T. & T., General Motors), Japan (Sango), Italy (Fiat), Germany (Klockner-Moeller), and Sweden (Volvo, Saab) experiment and which are in the spirit of work in America abolish the division of labor to a great extent and modify the meaning of private property as well as the relation between worker and employer. The workers themselves decide at which phase and at what time they are to work. They have a break whenever they like it. It has been found in Germany that "codetermination", the right of workers to be represented on supervisory boards and to have a say in running the affairs of a company, "has reduced strikes … and curbed the feelings of alienation that afflict workers in other European societies."

Related Theories
Karl Marx
Marx's theory of alienation was a synthesis of views held by the romantics, Fichte, Hegel, Feuerbach, and Hess and was based on the idea of man's universality, cherished since the Renaissance and revitalized by Goeth's and Schiller's Romanism. As opposed to Hegel and Feuerbach, Marx gave alienation a broader meaning. He was primarily interested in the etiology of alienation and believed that alienation is caused by the social and cultural structures. In his Economic and Philosophical Manuscripts, Marx argues that because of private property and the division of labor, man does not see and enjoy his own product as the result of his potential. This alienation from his work dehumanizes him and alienates him from himself, from nature, and from his fellow man. These alienations can be conquered not by love, as young Hegel declared, or by knowledge, as the author of the phenomenology and Feuerbach demonstrated, but only another economic and political system which suppresses private property and specialization: Communism. Thus, the revolution of the proletariat cannot occur according to Marx, without the worker being alienated from himself, his work, and his society.

Marx's theory of work alienation is generally traced to the writings of Karl Marx, Particularly to his economic and philosophic manuscripts (also known as the Paris manuscripts). His conception of alienation represents one facet of his large theory of history. His work achieves a synthesis of two major bodies of thought, the Hegelian dialectic and the classical economic theory of value. Hegel views thought (ideas) as the substance of everything. Thought and reason are synonymous. All knowledge and understanding exist in the form of thought. The basic premise, therefore, upon which his entire theory was based is that all things could be understood in terms of the logic of ideas. Dialectical reasoning, according to Hegel, consists of the principle of contradiction. Everything has an opposite. Being, for example, is contradicted by not being. Dialectical thought proceeds according to the form of

9. Ibid. P. 30
10. Ibid. P. 30
thesis, antithesis, and synthesis. When applied to reality it consists of a process of emergence. Reality is a continuous ongoing process of becoming. In accepting the labor theory of value according to Locke, Smith, and Ricardo and placing it within the context of dialectical thought, Marx formulated what is commonly called dialectical materialism.

In viewing Hegel from another angle, which is focusing on the “real” world rather than on the world of ideas, Marx took stock of the nascent industrial society. Medieval forms of home production were being swiftly replaced by the factory. Workers no longer lived and worked under the same roof. Large numbers of laborers now moved to central locations and worked at increasingly specialized tasks. This system of production, which was both defined and criticized by Marx, is the private enterprise system of capitalism. Marx was particularly keen in his assessment of the emerging mode of production. Labor was being sold for wages to entrepreneurs. This means of production was owned by these entrepreneurs who managed them for profit. Any profit was everything over the cost of production, including the cost of labor. It was Marx's view that the capitalists would exploit labor by paying only a subsistence wage, or less. The effect of all this would be the emergence of two distinct classes, the proletariat and the bourgeoisie. The two groups would eventually become solidified against one another and produce a revolution. The result would be the creation of a new arrangement in the means of production free of exploitation.

Of particular significance to the problem of alienation is Marx's description of the mode of production under capitalism. The worker no longer works on the whole product but contributes only a small part to the final product. This separation of worker from the fruits of his labor has far reaching affects. First, it makes of labor a commodity not unlike any other. Moreover, it makes of the laborer the same, a commodity. This means that the thing produced as well as the producing itself confronts the person as an alien thing—a thing to be reckoned with, an external power. The worker creates a commodity which sells in the market. Work becomes merely a means to other ends, namely, wages and making a living, and loses any personal meaning or relevance for the worker. Furthermore, since the product the worker produces sells for more than he himself can afford to pay for it, he begins to deify the products of his own creation. But alienation penetrates beyond the economic realm. "He alienates products of his social activity in the form of state, law, social institutions. So there are many forms in which man alienates the products of his own activity from himself and makes of them a separate, independent and powerful world of objects toward which he is related as a slave, powerless and dependent”.

Max Weber
With Max Weber we find again the quest for meaning in the developments of Western society. Having studied the works of such men as Comte, Spencer, Tonnies, Wundt, and Marx, he shared their general intellectual orientations. He differed, however, most significantly with Marx. Most unacceptable was Marx's singularistic (economic) explanation of all phenomena, including the social. Marx's emphasis upon the wage worker as being "separated from the means of production" becomes, in Weber's perspective, merely one special case of a universal trend. The modern soldier is equally separated from the means of violence; the scientist from the means of inquiry; and the civil servant from the means of administration. (1946, p. 50).

George Simmel
For Simmel, alienation was a kind of collision between society and the individual in the general form of individual life. He examined the various forms which characterized all social interaction. In fact, it was the description of these forms of interaction that set the task of sociology. All human groups, whatever their size or purpose, show peculiar forms of behavior on the part of member to member. Among these

2. Ibid, p. 31.
are superiority and subordination, competition, division of labor, formation of loyalties, and in-group solidarity. Simmel described quite clearly how the different properties of groups (size -- the the triad and the dyad) affected the nature of the relationship between members.  

An important area of interest in the work of Simmel was the special case of competition, that being conflict. He was drawn to this particular topic because of the many tensions and anxieties nurtured in the industrial society. In explaining the origins of conflict, Simmel found it to have both functional and dysfunctional import. The same is true of alienation. An amount of alienation was not only inevitable but necessary, for in this condition men find protection from the stress producing stimulation.  

Erich Fromm  
Erich Fromm has perhaps contributed more to the popularity of the concept alienation than anyone. The term found expression in Escape from Freedom (1941) but took on greater significance later in his book The Sane Society (1955). In this latter work, considered basically a continuation of Escape from Freedom, Fromm proposes and analysis of social character solely in terms of alienation.  

The position taken by Fromm is that under capitalism man is unable to fulfill any of these needs satisfactorily. Instead of enjoying a reunion with nature he suffers from isolation and character disintegration. Endowed with the equipment to rise above nature he is, nonetheless, unable to satisfy his felt need for creativity. Nor is he able to find closeness or prarimaryness in the growing autonomy and impersonality of mass humanity, and perhaps because of these problems he is uncertain of what he is or should be, and consequently faces an identity problem. What remains is a collection of bodies devoid of purpose and direction, point of view and perspective. All the features of capitalist society - work, bureaucracy, competition, leisure, religion, sex, reason, freedom, mass, etc., are alienating. The picture portrayed by Fromm is admittedly one-sided but very little can be found to justify optimism.  

Melvin Seeman  
It was Melvin Seeman (1958) who made more organized sense of the concept of psychosocial alienation. Melvin Seeman attempts to classify what he believes are the most frequent uses of the term "alienation" into five distinguishable types. In listing five different meanings of alienation, Seeman tries to refine them strictly.  

Powerlessness.-- "… the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcement he seeks."  

The second type of alienation is called meaninglessness, which exists,"… when the individual is unclear as to what we ought to believe when the individual's seminal standards for clarity in decision-making are not met." More specifically, meaninglessness refers to the difficulty in making accurate predictions about the behavior of others or about the outcome of one's own actions.  

Normlessness is Seeman's third type of alienation. Focusing again on the subjective, he defines normlessness as a condition"… in which there is a high expectancy that socially unapproved behaviors are required to achieve given goals."  

The fourth usage is subjective isolation, which involves the low assignment of"… reward value to goals or beliefs that are typically highly valued in the given society". As Seeman points out, this usage does not refer to isolation as a lack of social adjustment but to a detachment from cultural standards. Finally, "alienation" may mean self-estrangement "… the degree of the given behavior upon anticipated future rewards." Reflecting Marx, the reward is not in the act itself but is external to work, in some processes apart from and outside of the act to work.  

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7. Ibid., 52.  
8. Ibid, pp. 53-54  
9. Ibid, pp. 53-54
Job Satisfaction

According to most common definitions of job satisfaction (Wanous, Reichers, Huddy, 1997; Allen and Meyer, 1991; Mayer, et al., 1998; Locke and Lathan, 1976; Mitchell and Lason, 1987; Luthan, 1998), attitudes concerning one's own job or work are generally referred to by the term “Job satisfaction” 1. Locke and Lathan (1976) give a comprehensive definition of job satisfaction as pleasurable or positive emotional state resulting from the appraisal of one's job or job experience. Job satisfaction is a result of employee's perception of how well their job provides those things that are viewed as important. According to Mitchell and Lasan (1987), it is generally recognized in the organizational behavior field that job satisfaction is the most important and frequently studied attitude. While Luthan (1998) posited that there are three important dimensions to job satisfaction:

- Job satisfaction is an emotional response to a job situation. As such it cannot be seen, it can only be inferred.
- Job satisfaction is often determined by how well outcome meet or exceed expectations. For instance, if organization participants feel that they are working much harder than others in the department but are receiving fewer rewards they will probably have a negative attitudes towards the work, the boss and or coworkers. On the other hand, if they feel they are being treated very well and are being paid equitably, they are likely to have positive attitudes towards the job.
- Job satisfaction represents several related attitudes which are most important characteristics of a job about which people have effective response. These to Lufthansa are: the work itself, pay, promotion opportunities, supervision and coworkers. 2

Bussing et al. (1999) stated that job satisfaction and dissatisfaction were driven by interactions among demand, motivation and perception of the overall workplace environment, Kalleberg (1977) inferred that job satisfaction was felt by employees in an overall sense by taking into account perceptions of satisfaction and dissatisfaction with different job constructs. Some studies included the definition of job satisfaction as a subjective response experienced by the employee (i.e. Meredith et al., 2000; Porter and Lawler, 1968: Smith et al., 1969). According to this perspective, job satisfaction was determined by a discrepancy between what an individual wants in a job and what tasks she / he must perform as part of the job (Porter and Lawler, 1968). The higher that the discrepancy was between preferred job tasks and actual job tasks, the less the employee experienced job satisfaction. Job satisfaction could then be divided into four subordinate areas: intrinsic satisfaction (related to job itself), extrinsic satisfaction (interpersonal relationships), and general satisfaction (the general evaluation including internal or external issues) and frame of reference (based on past experience or knowledge). 3

Many questionnaires have been developed to measure job satisfaction. The most common method for collecting data regarding job satisfaction is the Job Descriptive Index (JDI) created by Smith et al. (1969). The JDI measures satisfaction in five domains: pay, promotions and promotion opportunities, coworkers, supervision and the work itself. Other job satisfaction questionnaires include the Minnesota satisfaction Questionnaire (MSQ) and the Job Satisfaction Survey (JSS), created by Weiss et al. (1967). The MSQ measures overall job satisfaction in 20 facets. Spector (1985) proposed the JSS, which contains fewer categories than the MSQ at 9 facets of job satisfaction based on 36 items in the questionnaires. Of these three questionnaires (the JDI, the MSQ and the JSS), Dunham et al (1977) recommended the MSQ as the most appropriate questionnaire for considering convergence validity and discrimination validity. Dunham et al. (1977) found that other variables (e.g. gender and job category) did not affect the predictability of the MSQ model. The utility of the MSQ model was supported by the following researchers: Bowling and Hammond, 2008: Karsli and Iskender, 2009; and Yang and Chang, 2008. 4

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4. Ibid, P. 5
Depression as a psychiatric disorder is characterized by recurrent and exaggerated shifts of mood from normal to either a manic state (strong excitement and elation) or a depressed state (extreme fatigue, despondency, and sadness). Some patients exhibit the whole cycle, but most vary between the normal mood state and one of the extreme phases, depression being the most common.

1. MANIC STATES. In the milder form of mania (hypomania) the patient shows great energy and enthusiasm. He talks continually, has unbounded confidence in his ability, rushes from one activity to another with little need of sleep, and makes grandiose plans with little attention to their practicality (but seldom puts these plans into action or completes them if he does). His behavior is similar in some respects to an individual who is mildly intoxicated.

In the more severe form of mania (hypermnia) the person behaves more like the popular notion of the raving maniac. He may be continually pacing about, singing, and shouting obscene phrases, screaming. He is confused and disoriented and may experience hallucinations and delusions. Some hyper manic individuals abandon all moral inhibitions and may exhibit unrestrained sexual behavior or violent assaultive behavior. The intense excitement of the hyper manic state can be reduced by the use of sedatives and hydrotherapy, so the visitor to a neuropsychiatric ward seldom sees the violent ravings and uncontrolled behavior commonly seen thirty years ago.

2. DEPRESSED STATES. The depressed individual's behavior is essentially the opposite of that of someone in the manic phase. Instead of being overactive, his mental and physical activity is much slower than normal. Instead of feeling overconfident and boastful, his self-esteem is at its lowest ebb. He feels rejected and discouraged; life seems hopeless and not worth living. Feelings of worthlessness and guilt predominate, and it is not infrequent for patients in this condition to attempt suicide. In the most intense state of depression the patient is bedridden and indifferent to all that goes on around him. He refuses to speak or to eat, and he has to be fed intravenously and completely cared for by others.

The depressed state of the manic-depressive psychosis differs from other depressions in that (1) there is no apparent precipitating stress, (2) the depression usually lifts spontaneously after a period of time, and (3) Subsequent periods of depression almost invariably occur. The cyclical nature of the mood changes suggests some sort of disturbance or defect in the neuro-hormonal mechanisms that control emotion.

Most people diagnosed as manic-depressive experience either mania or depression, with periodic recovery to normal behavior, but some develop a cycle of alternating between manic and depressed states. The factors that initiate the switch from one state to the other are not clear, but the two states are assumed to be psychologically related. The elation and frantic activity of the manic state appear to be a last-ditch attempt to defend against the underlying feelings of inadequacy and worthlessness that precipitate depression. Such a reaction is not unlike that of a normal person who participates in a round of gay and busy activities in an attempt to forget his problems. Unlike some forms of psychosis, manic-depressive psychosis does not result in progressive degeneration of social behavior and mental ability. There is much we do not know about the causes of manic-depressive psychoses. The fact that this type of reaction occurs much more frequently among the offspring of manic-depressives than in the general population suggests the possibility of a genetic predisposition to the disorder.

Theoretical Model and Hypothesis Development

Theoretical bases of and related research on the association among work alienation, job satisfaction and depression indicated a significant relationship between work alienation, job satisfaction and psychiatric disorder of depression. Moreover, research findings (Chen, 2006; Zuckerman, 2008; Taylor, 1991; Glantz and Hartel, 2001; Foster-Johnson and Petrila, 1996; Blauner, 1964; Friedmann, 1964) showed a significant negative association between work alienation and job satisfaction. In addition empirical results supported the negative (inverse) relationship between job satisfaction and psychiatric disorders such as depression.

2. Ibid
Based on an extensive and systematic literature review the research model is proposed (as shown in Fig.1), which depicts the conceptual model of this study. This model displays the relationships among work alienation, job satisfaction and depression disorder for workers of the industrial and service sectors in the city of Tehran:

![Fig 1: Proposed Hypothetical Model](image)

**Note:**
- (-) Means that the hypothesized relationship is negative
- (+) Means the causal paths are hypothesized to be positive

Based on the proposed hypothetical research model the following hypotheses are developed:

- **H1.** The relationship between work alienation and depression disorder is positive
- **H2.** The relationship between job satisfaction and depression disorder is negative.
- **H3.** The relationship between work alienation and job satisfaction is negative
- **H4.** The rate of depression varies by gender
- **H5.** The rate of depression varies by age
- **H6.** The rate of depression varies by the type of workplace

**Method**

**Participants and Procedure**

A directive survey research was carried out by administrating a structured questionnaire as the principal techniques of data collection.

A total of 234 workers through a disproportionately stratified sampling was drawn. The sample was recruited from 52303 employees of a state and privately owned manufacturing plants and service sector in the city of Tehran. The data analysis are computed using SPSS Version 16.0 software. The Chi - Squire Test, the association Pearson test, the multiple regression and path analysis are utilized to test the research hypotheses and to establish causal relations between/ among the proposed variables.

**Measures**

In order to measure dependent and independent variables, three scales of measurement, namely SCL 90 for depression, Work Alienation Scale\(^1\) for work alienation, and JIS\(^2\) for job satisfaction were utilized:

- Depression Scale (SCL 90): Consisted of 12- items with internal consistencies \(\alpha = 0.89\).
- Work Alienation Scale (WAS): Consisted of 12- items with internal consistencies \(\alpha = 0.87\).
- Job Satisfaction Index (JSI): Consisted of 5- items with consistencies \(\alpha = 0.85\).

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\(^1\) WAS
\(^2\) Job Satisfaction Index
Results

Sample Demographic Characteristics
As Table 1. Shows, the 234 subjects had a mean age of 39 years (Range = 17-63). Regarding respondents’ gender. A significant proportion of respondents (79.90%) were male. In terms of respondents’ level of education, 16 Percent of them have had less than high school education. 14% earned a high school education.
Almost half of the respondents (49%) held a diploma degree. 12 percent of respondents held a bachelor's degree while 7 percent reported having earned M. A degree or more. With regard to the marital status of respondents the majority of them (64%) were married. The average respondent had worked at their current organization for approximately 9 years (s.d. = 8.29, range: 7 months to 36 years).
In terms of respondents’ monthly payment, data indicated that the average monthly wage of respondents was 975.000 toman. Finally 45.6 percent of respondents were employed in industrial sector of economy comparing to 5.4 percent working in the service sector of economy (see Table 1.):

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Descriptive Statistics for the Variables
In order to measure the extent of depression disorder, job satisfaction and work alienation among the statistical sample, different scales of measurements were employed. The psychiatric disorder of depression was measured with 12- item SCL 90 test. The scale of depression is one of the scales the SCL 90 test uses for measuring ten symptoms of psychological (mental) disorders1. This Scale is arranged in the Likert format. Each item has five answers - none, little, to some extent, extensive, strong - and the person taking the test (subject) selects the answer that is compatible with his/ her conditions and marks it. The texts of the items after translation into Persian (Farsi) and their adaptation to the conditions of the respondents were employed. As table 2 indicates 33.4 percent of respondents were quite healthy or healthy. In contrast, 20 percent of respondents were on the verge of illness. Finally, 46.6 Percent of them were either sick or strongly sick.

Table (2): The extent of depression disorder among respondents

<table>
<thead>
<tr>
<th>Extent of Depression</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quite Healthy</td>
<td>44</td>
<td>19.33</td>
</tr>
<tr>
<td>Healthy</td>
<td>34</td>
<td>14.07</td>
</tr>
<tr>
<td>On the verge of Illness</td>
<td>47</td>
<td>20.0</td>
</tr>
<tr>
<td>Sick</td>
<td>30</td>
<td>10.60</td>
</tr>
<tr>
<td>Strongly Sick</td>
<td>79</td>
<td>34.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

In measuring the rate of job satisfaction of respondents the job Satisfaction Index (JSI) was employed. This scale is comprised of five items that in the Lickert format are arranged in order. Each item has five answers - most often, often, seldom, most seldom, never - and the respondent taking the test selects the answer that is compatible with his/ her conditions and marks it. The texts of the items after translation into Persian and their adaptation to the conditions of the statistical sample were employed. From the total score obtained for each item based on the values assigned to each answer, one can measure the extent of job satisfaction in the subject. Based on the obtained scores, the subjects were divided into three categories of high, medium, and low. The results of JSI are shown in Table 3.

Table (3): job satisfaction rate of respondents

<table>
<thead>
<tr>
<th>Job Satisfaction Rate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low job satisfaction</td>
<td>95</td>
<td>41</td>
</tr>
<tr>
<td>Medium job satisfaction</td>
<td>79</td>
<td>34</td>
</tr>
<tr>
<td>High job satisfaction</td>
<td>60</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As results indicate, a significant proportion of respondents held either a low or medium rate of job satisfaction (41% and 34%) while only 25 percent reported having held high rate of job satisfaction.

To measure the extent of work alienation among workers as a statistical sample in our study a 12- item scale of work alienation was employed. This scale is arranged in the Lickert format. Each item has five answers - strongly disagree, disagree, uncertain, agree, and strongly agree - and the person taking the test selects the answer that is compatible with his/ her conditions and marks it. The texts of the items after translation into Persian and their adaptation to the conditions of the respondents were employed. From the total score obtained for each item based on the values assigned to each answers, one can measure the extent of work alienation in the subject. Based on the obtained scores, the subjects were divided into three categories of high, medium and low. In table 4 the ranked scores of work alienation are presented. As has been shown, more than 43 percent of respondents in our sample hold high level of work alienation, while 19.5 percent reported low level of work alienation. Finally, 37 percent of respondents hold medium level of work alienation.

Table (4): work alienation rate of respondents

<table>
<thead>
<tr>
<th>Rate of work alienation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>45</td>
<td>19.50</td>
</tr>
<tr>
<td>Medium</td>
<td>87</td>
<td>37.0</td>
</tr>
<tr>
<td>High</td>
<td>101</td>
<td>43.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Test of Hypotheses

Based on the proposed hypothetical research model six hypotheses were developed. The results of hypotheses testing is presented in table 5.
As is evident from Table 5. With respect to the hypothesis 1. Which assumed a relationship between work alienation and depression disorder, the result of Pearson test confirms this hypothesis. That is, as the rate of work alienation increases, the depression rate of respondents increases accordingly. In examining the hypothesis 2, which implied the inverse relationship between job satisfaction and depression disorder, the Pearson Correlation test was applied. The results confirmed this hypothesis. Thus, it can be concluded that there is a negative significant relationship between two variables. That is, as the rate of job satisfaction increases the rate of depression disorder decreases. According to hypothesis 3, there is an inverse relationship between job satisfaction and work alienation. In examining this hypothesis, the correlation test of Pearson was employed. The results of testing this hypothesis depicted a negative significant association between job satisfaction and work alienation.

The fourth hypothesis which assumed the variation of depression rates by gender was tested by using Chi - Square test. The results indicate that the depression rates of respondents vary significantly by their gender. Therefore, it can be asserted that the difference between males and females depression rates is in right direction and that women showed more tendency toward depression disorder than men. In order to test hypothesis 5, which assumed the rate of depression disorder varies by age, we applied the Spearman Rank Coefficient to measure the correlation between age and depression disorder. The results indicated that among age groups (Young, Middle Age, Old). The depression disorder rates vary. That is as age increases, the depression rate increases accordingly. Hypothesis 6 which predicted a significant variation of depression rate with respect to the type of work place was not confirmed by empirical evidences. Thus, according to the results of Chi - Square test it can be concluded that the depression rate of workers dose not vary by their type of work place. Table 6 and Figure 2 depict the statistical results for path analysis1 of different variable affecting depression disorder among the respondents.

Table 6 shows that the relative equivalence of the job satisfaction of the respondents turn out to be the most significant predictor of the depression disorder among workers of our statistical sample, followed by the work alienation as the second predictor of the depression disorder (Beta = -0.680 Beta = 0.510). The path coefficients rejected 2 (Beta) calculated for education, religiosity, work commitment, social

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1. Path Analysis is a method of presenting graphically the networks of causal relationships among several variables. It illustrates graphically the primary paths of variables through which independent variables cause dependent ones.
2. Betas of path coefficient are standardized regression coefficient representing the partial relationships between variables.
capital, and age in multiple regression equation, showed to be correlated negatively with dependent variable of depression disorder. That is, the higher a respondent's scores on these factors, the less likely he or she is to maintain the depression disorder. The amount of adjusted. $R^2(0.560)$ signifies that 56 percent of the variance in the dependent variable is explained by or shared with the factors presented in table 6. In figure 2 the final path analysis is represented schematically. Figure 2 verifies that:

1. The higher the rate of the job satisfaction of the workers, the lower and / or weaker their depression disorder.
2. The higher the rate of work alienation of workers, the higher and / or stronger their depression disorder.
3. The higher the level of the respondents’ education, the lower their depression disorder.
4. The higher the rate of the respondents’ religiosity, the lower their depression disorder.
5. The higher the rate of respondents’ social capital, the lower their depression disorder.
6. The rate of respondents’ depression disorder varies by their age group.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Beta</th>
<th>T</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td>-0.680</td>
<td>-7.720</td>
<td>0.000</td>
</tr>
<tr>
<td>work alienation</td>
<td>0.510</td>
<td>6.582</td>
<td>0.000</td>
</tr>
<tr>
<td>education</td>
<td>-0.480</td>
<td>-6.247</td>
<td>0.000</td>
</tr>
<tr>
<td>religiosity</td>
<td>-0.450</td>
<td>-6.189</td>
<td>0.000</td>
</tr>
<tr>
<td>work commitment</td>
<td>-0.433</td>
<td>-5.876</td>
<td>0.000</td>
</tr>
<tr>
<td>Social capital</td>
<td>-0.420</td>
<td>-5.68</td>
<td>0.000</td>
</tr>
<tr>
<td>Age Group</td>
<td>-0.381</td>
<td>-4.29</td>
<td>0.000</td>
</tr>
</tbody>
</table>

$R^2 = 0.571$; Adjusted $R^2 = 0.560$

**Figure (2): Final Path Analysis**

**Discussion**

The empirical evidence and findings presented in this article are consistent with the findings of previous studies for Western societies. Studies of depression in working class indicate that negative life events such as addiction, alcohol abuse, discrimination, frustration, job burnout, role conflict, job dissatisfaction, work alienation, role conflict, role ambiguity and the like are the significant predictors

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1. $R^2$ or squared multiple correlation is the proportion of the regression sum of squares over the criterion total sum of squares. It represents the proportion of variance in the criterion accounted for by the linear combination of the independent variables. The adjusted $R^2$ is a more conservative estimate of explained variance than the $R^2$, since it takes into account the size of the sample and the number of predictors in the equation.
of depression disorder (Zuckerman, 2008; Taylor et al, 1991; Black and Markides, 1993; Glantz and Hartel, 2000; Macionis, 2011, …) This study investigated the association between depression disorder and several variables which were closer and more prevalent determinat and predictor of depression disorder. In doing so, present study took two distinct approaches in its investigation of the association between depression and its predictors: In the first place. We examined in a bi - variate manner the relationship between depression disorder and job satisfaction, work alienation. Gender, age and the type of work place among 234 workers who were employed in industrial and service sector of economy in the city of Tehran. In the second place, we relied on a multivariate approach by employing the path analysis to depict the networks of causal relationships among several variables through which independent variables cause dependent one.

We developed six hypothesis in a bi - variate manner to examine the relationship between depression disorder as a dependent variable and job satisfaction, work alienation, gender, age and the type of work place as an independent variables. The results of hypothesis testing showed that job satisfaction, work alienation, and gender bear strong and consistent relationship to depression disorder in our data. Nevertheless, research findings did not support the hypotheses that assumed a significant correlation between depression, age, and type of work place. Based on the statistical results of path analysis, we can conclude that depression disorder are common and more prevalent among workers who are dissatisfied in his job, are alienated from his work, have lower social capital, are less committed to his/ her work, have lower education, do not participate in religious rituals and are either young or old. The data permit many additional questions to be raised and propositions analyzed. For example, what the factors besides those included in the present study, account for the substantial amount of variance in depression disorder? To what extent do the structural properties of societal institutions exert influence on psychiatric disorder of depression of workers? While these suggestions seem to be speculative, their validity could be tested by other scholars in other research contexts and they could be modified in that process.

References

35. Patterns of Student Adjustment to the Contemporary Political and Social Scene in Iran. Critique, 14 (1) pp. 75-80.