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Research Article

Flow, Work Satisfaction and Psychological Well-Being among Nurses in Turkish Hospitals

Abstract

This exploratory study examined the relationship between the experience of flow at work and indicators of satisfaction, engagement and psychological well-being of nursing staff working in Turkish hospitals. This emphasis was consistent with emerging trends in both psychology and organizational studies, termed positive psychology or positive organizational scholarship respectively, to focus on strengths and excellence rather than dissatisfaction and pathology. Data were collected from 224 staff nurses in Ankara Turkey using anonymously completed questionnaires, a 37% response rate. Hierarchical regression analyses, controlling for both personal demographic and work situation characteristics, indicated that flow accounted for significant increments in explained variance on most work outcome measures but not on indicators of psychological well-being. Explanations for the association of flow with favorable outcomes are offered along with potentially practical implications.

Introduction

The fields of psychology and management have begun to devote more of their research attention to the positive side of individual well-being and the experiences of work and working as these contribute to well-being [1,2], observed that the focus in psychology on negative states was greater than the focus on positive states by a factor of fourteen to one.

An emphasis on these negative experiences and outcomes is consistent with several decades of work in the field of psychology with its emphasis on pathology and illness [3], and the past forty years in the fields of organizational behavior and management with their emphasis on dissatisfaction, withdrawal behaviors and alienation in the workplace [4]. Recent developments in these fields, however, have fostered a different emphasis; an emphasis on human flourishing and individual strengths represented by the beginnings of positive psychology [5-7] and "what is right" in organizations represented by positive organizational scholarship [8] and positive organizational behavior [9]. Most of this work has been carried out in North America. Positive organizational scholarship (POS) focuses on positive outcomes such as flow, resilience, meaning, engagement, thriving and excellence -- the best of human and work conditions.

This research considers the experience of flow [10]. Flow can be experienced in a wide range of activities, work being only one of them Csikszentmihalyi [11], identified eight conditions associated with individual reports of experiencing flow clear goals, immediate feedback on progress, challenging but doable tasks, deep concentration, living in the present moment, feelings of control, being absorbed in the task so that one's sense of time changes, and submerging one's ego in the task. Unfortunately flow doesn't happen very often on one's job [12]. Most jobs do not provide the conditions associated with flow listed above.

Flow

The experience of flow has only recently been examined in traditional organizational jobs with much of the earlier work undertaken on athletes [13-19], trail hikers [20], aerobic dance exercisers [21], theater actors [22] and music students and music teachers [23-25] and in computer-assisted communication [26-28]. Studies in more traditional work settings have been reported by Bakker, Demerouti, Quinn, and Burke and Mattheisen [29-32].

Studies of flow in a variety of different settings have shown that the experience of flow was associated with higher levels of psychological well-being and performance [30,32-35]. One study [36], found that levels of flow were positively correlated with positive affect and negatively correlated with negative affect in music students.

Flow in the workplace

Flow in the workplace has received some research attention. Burke and Matthiesen [32], using the Jackson and Marsh [15] measure of flow, considered correlates of flow in a sample of Norwegian journalists. Journalists reporting more flow at work were older, had longer career and organizational tenure, worked in larger units and earned more money. Journalists indicating higher levels of flow also reported more work enjoyment, positive affect, and professional efficacy and lower levels of feeling driven to work because of inner pressures (less anxiety). Flow did not predict levels of absenteeism however.

Demerouti, using Bakker's [29,30]. WOLF measure of flow. Considered flow and job performance Data were collected from 113 respondents in a wide variety of occupations. She reported that motivating job characteristics predicted flow, and flow in turn, predicted both in-role and extra-role job performance as assessed by a colleague at work. But only among respondents high on conscientiousness.

Bakker [29] reports on the development and validation of a measure of flow, the WOLF, having three components, intrinsic motivation and absorption and work enjoyment. These three components were found to be independent factors, and correlated with the Jackson and March [15] measure of flow. In addition, job characteristics predicted flow, and flow in turn was associated with ratings of job performance (e.g., in-role and extra-role job behaviors)

Quinn [31], collected both qualitative and quantitative data from a sample of scientists testing two models of flow. He did not find support for the Jackson and Marsh [15] model proposing that flow was a product of the nine features identified by Csikszentmihalyi [12]. Instead he found support for a model integrating the merging of awareness and application. He also observed that types of jobs held and type of tasks performed influenced the experience of flow.

Finally, while not measuring flow directly, Eisenberger, Jones, Stinglhamber, Shanouk and Randall [37], examined the relationship of employee's perceived skill and challenge at work, need for achievement, positive mood, intrinsic task interest, and extra-role performance. Data were collected from two large samples of employees working in a variety of jobs in the same eight workplaces. The found, similar to Demerouti [30], that among high achievement employees only, high skill and challenge were associated with positive mood, task interest, and performance.

These studies of flow in the workplace, along with the more general writing on flow [38-41], suggest the following conclusions. First, flow is a real phenomenon likely to exist in the workplace and be a factor in individual satisfaction, growth and performance. Second, there is no agreed upon definition of the flow concept. Third, there is no agreed upon measure of flow and some flow measures [29], are a mixture of antecedents and outcomes of flow. Fourth, individual traits and characteristics, type of jobs, and type of tasks are likely to affect the experience of flow at work.

Flow in nursing

Nurses occupy a central role in the delivery of health care, though countries may have different health care systems and methods of payment options. Unfortunately, research conducted in various countries has indicated that levels of nurse dissatisfaction, burnout and intent to leave the profession are high [42]. Younger individuals are also less interested in careers in nursing. Some countries are now reporting a shortage of nurses, often compounded by the fact that richer nations are luring nurses away from poorer ones. The health care system has also undergone significant change over the past decade stemming from the greater use of new technologies, off-shoring some services to developing countries, advances in medical knowledge, an aging population, more informed and critical users of the health care system, and efforts by governments to further control health care expenditures. Nursing appears to be a crisis.

It is not surprising then, given the central role nurses play in the delivery of health care, that considerable research has been undertaken to understand the work experiences of nurses, particularly as they relate to nurse satisfaction and well-being and patient care. Much of this work has studied "what is wrong" with hospitals and health care more generally and with nursing more specifically. It has concentrated

on issues of workload, lack of resources, overtime work, and increases in abuse experienced in the work place by nursing staff as these affect burnout, depression, psychosomatic symptoms, absenteeism and intent to leave the profession [43-46]. The bulk of nursing research has used a stressor-strain framework and has contributed a great deal to our understanding of the experiences of nurses in their workplaces. These are all important subjects but they tell only part of the story.

The present study examines the relationship of flow and nurse work experiences, satisfactions, and psychological well-being. It provides a preliminary examination of the general hypothesis that flow would be associated with more favorable work and well-being outcomes. A study of flow in nursing seemed appropriate given the mission of helping and caring. Turkey, similar to most other countries, is currently facing a nursing shortage. It also extends the study of flow to Turkey to examine the generalizability of previous North American results. The general hypothesis underlying this study was that nurses scoring higher on flow would indicate more favorable work outcomes and higher levels of psychological well-being. In addition, it adds to the limited but growing interest in flow in the workplace.

Method

Procedure

This study was carried out in research hospitals in Ankara Turkey, research sites being randomly selected from the 15 research hospitals in that city. Ethics approval was obtained from the Research committee at York University. The Health Ministry sent a cover letter to the Chief Physicians of these hospitals requesting their cooperation. Six hundred questionnaires were administered to staff nurses in the hospitals. Measures originally in English were translated into Turkish using the back translation method. Data were collected in March 2009. Two hundred and twenty-four nurses completed the surveys, a 37% response rate.

Respondents

Table 1 presents the personal demographic and work situation characteristics of the sample (n=224). There was considerable diversity on each item. The sample ages ranged from under 25 to over 46, with 128 (59%) being between 26 and 35. Most were married (77%), had children (70%), worked full-time (79%), wanted to work full-time (99%), were female (88%), worked between 41-45 hours per week (69%), had high school or vocational school education (35%), did not have supervisory responsibilities (56%), had not changed units in the past year (74%), had five years or less of nursing tenure (59%), five years or less of nursing tenure (58%), and worked in a variety of nursing units.

Measures

Personal and work situation characteristics: These were measured by single items (e.g., age, sex, level of education, unit tenure, hospital tenure).

Flow

Flow is a positive experiential state when an individual is totally connected to the task in a situation where personal skills are equal to the required challenges; flow is the subjective experience

Table 1: Demographic Characteristics of Sample.

Age	N	v	Sex	N	%
25 or less	18	8.4	Female	180	87.8
26 – 30	76	35.3	Male	25	12.2
31 – 35	52	24.4	Marital Status		
36 – 45	44	21.5	Married	168	77.4
41 – 45	17	8.3	Single	49	22.6
46 or older	8	3.9			
Parental Status			Number of Children		
Children	151	70.3	1	70	46.4
Childless	64	29.7	2	76	50.3
			3 or more	5	3.3
Education			Work status		
High School	75	34.6	Full-time	160	79.4
Vocational School	50	23.0	Part-time	54	20.6
Bachelor's degree	70	32.2	Supervisory Duties		
Master's degree	2	0.9	Yes	69	79.4
Faculty	20	9.2	No	148	68.2
Hours worked			Preferred Work status		
40 or less	39	19.8	Full-time	197	99.5
41 – 45	84	42.6	Part-time	1	0.5
46 – 50	38	18.3	Hospital Tenure		
51 – 55	9	4.6	5 years or less	118	57.6
56 or more	27	13.7	6 – 10 years	49	23.9
Changed Units Past Year			11 – 15 years	14	6.8
Yes	53	26.0	16 – 20 years	15	7.3
No	151	74.0	21 years or more	9	4.4
Nursing Tenure					
5 years or less	119	59.1			
6 – 10 years	41	20.4			
11 – 15 years	14	7.0			
16 – 20 years	18	9.0			
21 years or more	9	4.5			

of full involvement with one's job and work [10]. In this research, flow was measured by a 36 item instrument developed by Jackson and Marsh [15]. This scale measured nine dimensions: challenge-skill balance, action-awareness merging, clear goals, unambiguous feedback and concentration on the task at hand, sense of control, loss of self-consciousness, transformation and autotelic experience. The reliability of the 36 item scale was .91. Nurses were asked to answer the questions in relation to their experience at work during the past week. Items included "I was aware of how well I was performing during the week", "My goals were clearly defined" and "I was challenged, but I believed my skills would allow me to meet the challenge."

Work outcomes

Ten work outcomes were included.

Job satisfaction: Job satisfaction was measured by a five-item scale ($\alpha=.79$) developed by Quinn and Shepard [47]. One item was, "All in all, how satisfied would you say you are with your job?" Respondents indicated their responses on a four-point Likert scale (1=Very satisfied, 4=Not at all satisfied).

Self-rated job performance: Self-rated job performance was measured by two items ($\alpha=.68$) Nurses indicated their

agreement with the following questions on a five-point Likert scale (1=strongly disagree, 3 = neutral, 5=strongly agree): "My supervisor(s) is (are) completely satisfied with my performance." And "My last performance appraisal was highly positive."

Absenteeism

Nurses indicated first how many days they had been absent from work during the past month, and then how many of these days of absenteeism were due to sickness.

Intent to quit: ($\alpha=.76$) was measured by two items used previously by Burke [48]. An item was, "Are you currently looking for a different job in a different organization?"

Work engagement

Three dimensions of work engagement were assessed using scales developed by Schaufeli, Salanova, Gonzalez-Roma and Bakker and Schaufeli and Bakker [49,50]. Respondents indicated their agreement with each item on a five-point Likert scale (1= strongly disagree, 3=neither agree nor disagree, 5=strongly agree).

Vigor: Vigor was measured by six items ($\alpha=.82$). One item was "At my work, I feel bursting with energy."

Dedication: Dedication was measured by five items ($\alpha=.79$). An item was "I am proud of the work that I do."

Absorption: Absorption was assessed by six items ($\alpha=.85$). One item was "I am immersed in my work."

Burnout

Three dimensions of burnout were measured by the Maslach Burnout Inventory [51]. Respondents indicated how often they experienced each item on a seven-point scale (0=never, 3=a few times a month, 6=every day).

Exhaustion: Exhaustion was measured by a five-item scale ($\alpha=.86$). A sample item was "I feel burned out from my work."

Cynicism: Cynicism was assessed by a five-item scale ($\alpha=.58$). One item was "I have become more cynical about whether my work contributes anything."

Efficacy: Efficacy was measured by six items ($\alpha=.77$). An item was "I have accomplished many worthwhile things in this job."

Psychological well-being

Five aspects of psychological well-being were included.

Positive Affect: Positive Affect was measured by a ten-item scale ($\alpha=.91$) developed by Watson, Clark and Tellegen [52]. Respondents indicated how often they experienced these items during the past week (e.g., excited, proud, excited) on a five-point Likert scale (1=not at all, 5=extreme).

Negative affect: Negative affect was also measured by a ten-item scale ($\alpha=.86$) developed by Watson, Clark and Tellegen [52]. Respondents indicated how often they experienced these (e.g., irritable, nervous, distressed) on the same frequency scale.

Psychosomatic symptoms: Psychosomatic symptoms was



measured by nineteen items ($\alpha=.91$) developed by Quinn and Shepard [47]. Respondents indicated how often they had experienced each physical condition (e.g., headaches, having trouble getting to sleep) during the past year. Responses were made on a seven-point Likert scale (1=never, 4=often).

Medication use: Medication use was measured by a five-item scale ($\alpha=.75$) developed by Quinn and Shepard [47]. Respondents indicated how often they took listed medications (e.g., pain medication, sleeping pills) on a five point scale (1=never, 5=a lot).

Life satisfaction: Life satisfaction was assessed by a five-point scale ($\alpha=.90$) developed by Quinn and Shepard [47]. Respondents indicated their agreement with each item (e.g., in most ways my life is close to ideal) on a seven-point Likert agreement scale (1=strongly agree, 4=neither agree not disagree, 7=strongly disagree).

Results

Descriptive information

The item mean on the flow scale was 4.0, s.d.=.79 (N=140). Nurses “somewhat agreed with each item. This mean value was significantly higher than that obtained in a study of Norwegian journalist [32].

Hierarchical regression analysis

Hierarchical regression analyses were undertaken in which various work outcomes, indicators of psychological well-being and perceptions of hospital functioning were regressed on three blocks of predictors entered in a specified order. The first block of predictors (n=4) consisted of personal demographics (e.g., age, marital status, level of education); the second block (n=4) consisted of work situation characteristics (e.g., job has supervisory duties, hospital tenure, work status, full-time versus part-time); the third block of predictors (n=1) consisted of the flow measure. When a block of predictors accounted for a significant amount or increment in explained variance ($p<.05$), individual variables within these blocks having significant and independent relationships with the criterion variable ($p<.05$) were identified. These variables are indicated in the tables that follow along with their respective s.

Predictors of flow

The measure of flow was regressed on two blocks of predictors (personal demographics and work situation characteristics). No block of predictors accounted for a significant amount or increment in explained variance on flow.

Flow and work outcomes

Table 2 presents the results of hierarchical regression analyses in which nine work outcomes were regressed separately on the three blocks of predictors: personal demographics, work situation characteristics, and flow. The following comments are offered in summary. Flow accounted for a significant increment in explained variance on five of the ten of the work outcomes. Nurses scoring higher on flow indicated higher levels of efficacy, self-rated job performance, vigor, dedication and absorption (Bs=.34, .40, .22, .38 and .38, respectively).

Flow and psychological well-being

Table 3 shows the results of hierarchical regression analyses

Table 2: Flow and Work Outcomes.

Work Outcomes				
Job Satisfaction (N=164)	R	R ²	ΔR^2	P
Personal demographics	.22	.05	.04	NS
Work situation	.33	.11	.06	.05
Supervisory duties(.20)				
Flow	.34	.11	.00	NS
Self-rated Job Performance(N=164)				
Personal demographics	.11	.01	.01	NS
Work situation	.20	.04	.03	NS
Flow (.40)	.44	.19	.15	.001
Days Absent (N=165)				
Personal demographics	.09	.01	.01	NS
Work situation	.13	.01	.01	NS
Flow	.13	.02	.00	NS
Intent to Quit (N=164)				
Personal demographics	.36	.13	.13	.001
Marital status (-.20)				
Work situation	.42	.17	.04	.01
Flow	.42	.18	.01	NS
Engagement				
Vigor (N=167)				
Personal demographics	.26	.07	.07	.05
Work situation	.41	.17	.10	.001
Supervisory duties (.19)				
Changed units (.19)				
Flow (.22)	.46	.21	.04	.001
Dedication (N=165)				
Personal demographics	.13	.02	.02	NS
Work situation	.35	.12	.10	.001
Supervisory duties (.14)				
Work status (.25)				
Flow (.38)	.50	.25	.13	.001
Absorption (N=165)				
Personal demographics	.15	.02	.02	NS
Work situation	.36	.13	.11	.01
Unit tenure (-.37)				
Changed units (.15)				
Flow (.38)	.45	.20	.07	.001
Burnout				
Exhaustion (N=165)				
Personal demographics	.24	.06	.06	.05
Work situation	.32	.10	.04	.05
Flow	.32	.10	.00	NS
Cynicism (N=166)				
Personal demographics	.13	.02	.02	NS
Work situation	.26	.08	.06	NS
Flow	.28	.08	.00	NS
Efficacy (N=166)				
Personal demographics				
Work situation	.14	.02	.02	NS
Virtues	.29	.08	.06	NS
Flow (.34)	.44	.19	.11	.001

involving five indicators of psychological well-being: positive and negative affect, psychosomatic symptoms, and medication use and life satisfaction. The following comments are offered in summary.

Flow accounted for a significant increment in explained variance in only one analysis: Positive affect). Nurses reporting higher levels of flow also indicated more positive affect ($B=.28$).

It is possible to draw some tentative conclusions across all the analyses that were undertaken. First, personal demographics almost never accounted for a significant amount of explained variance in any of the analyses. Second, work situation characteristics accounted for a significant increment in explained variance in about half the hierarchical regressions; more significant relationships were observed with indicators of work outcomes than with the other types of outcomes. Third, flow accounted for a significant increment in explained variance in about half of the analyses, primarily on work outcomes.

Discussion

This exploratory study provided partial support for the general hypothesis underlying the research. That is, nurses reporting higher levels of flow performed at a higher level (greater efficacy) and were more engaged at work (Table 2). These results were supportive of previous theorizing [8,53-55] and consistent with empirical findings [29,56,57]. Thus flow seems to be associated with greater satisfaction and involvement at work. Our findings, however, showed on a weak relationship of flow with indicators of psychological well-being, not support previous results. It is not clear why flow failed to predict psychological well-being in this sample.

Why is flow associated with positive outcomes?

Four different explanations for the association of flow with higher levels of individual and organizational well-being have been proposed. First, flow, as reported above, was associated with positive emotions. In addition, flow tended to be associated with other virtues, increasing the experiencing of positive emotions even more [58]. Individuals experiencing positive emotions are more likely

to be proactive, to engage in organizational citizenship behaviors, be outgoing, and think and act in more creative ways. Fredrickson [59,60], developed her “broaden and build” theory of positive emotions, which, at its core, suggests that positive emotions foster an upward spiral of individual functioning [61].

Second, flow is associated with higher levels of individual psychological and physical health. Healthy individuals are likely to be being heightened focus, vigor and persistence, which in turn contribute to higher levels of individual and organizational functioning [62-64].

Third, flow is associated with increases in both personal and job or organizational resources over time. This would be predicted by Fredrickson’s “broaden and build” theory; the rich keep getting richer. Particular virtues are likely to increase over time, and the consequences of these virtues (e.g., proactive behavior, creativity, vigor) are also likely to increase over time resulting in more personal resources. In addition, virtues would also be associated with more job and organizational resources over time as well (e.g., more variety, more feedback and learning). Virtues can make it easier for individuals to bounce back after setbacks in their personal or work lives [65,66].

Fourth, flow has also been found to influence colleagues in the workplace; virtues can be transferred to others. To the extent to which this occurs, the unit or organization becomes stronger and more effective. Positive emotions can be transferred to colleagues and customers [29,67,68].

Developing flow in the workplace

Csikszetmihalyi [12], believes that flow can be created in organizations. These include addressing the eight contributors of the flow experiences. Organizations need to undertake the following: clarify their goals, determine performance goals, make feedback available, help employees acquire the skills needed to do their jobs, allow employees some freedom and control, make it possible for employees to concentrate on their jobs, and allow employees some control over time. In addition, Hooker and Csikszentmihalyi [69], discuss the importance of sharing leadership in creating flow experiences and Heckman [70], advocates the use of teams to support flow.

There have been some efforts to develop other individual virtues that appear to have been successful. Emmons and McCullough [71], in studies of university students, developed gratitude by having them “count their blessings,” or to write down up to five things in their lives over the past week that they were grateful or thankful for. Bakker [72], describes his work with individuals and organizations to increase engagement using both interviews and survey data. Seligman [73,74], lays out his program for increasing optimism and happiness. Brown and Ryan [75] show how their efforts to develop mindfulness among cancer patients resulted in both increased mindfulness over time and declines in mood disturbances and stress. Eisen Berger [76], suggests how learned industriousness can be increased. Snyder [77,78], illustrates ways in which hope can be heightened. Finally, Luthans and his colleagues [53,56,79], describe a micro-intervention in some detail that they have used to increase levels of Psychological Capital (hope, optimism, resilience). These efforts provide a solid basis for further efforts to increase virtues, and outcomes such as flow.

Table 3: Flow and Psychological Well-Being.

Psychological Well-Being				
Negative Affect (N=162)	R	R ²	ΔR ²	P
Personal demographics	.14	.02	.02	NS
Work situation	.26	.07	.05	NS
Flow	.29	.08	.01	NS
Positive Affect (N=163)				
Personal demographics	.13	.02	.02	NS
Work situation	.26	.06	.04	NS
Flow (.28)	.37	.14	.08	.01
Psychosomatic Symptoms (N=162)				
Personal demographics	.23	.05	.05	NS
Work situation	.29	.08	.08	NS
Flow	.29	.08	.08	NS
Medication Use (N=164)				
Personal demographics	.06	.00	.00	NS
Work situation	.19	.04	.04	NS
Flow	.23	.05	.01	NS
Life Satisfaction (N=161)V				
Personal demographics	.14	.02	.02	NS
Work situation	.21	.04	.02	NS
Flow	.21	.04	.00	NS

High performing hospitals

Although the concept of flow may not have been introduced, several studies of high performing hospitals, termed magnet hospitals because these hospitals attract and retain nursing staff and provide high levels of patient care, have been reported [80-84]. These hospitals are characterized by a philosophy of caring from the top management that permeates the patient care environment, leaders that are visible and approachable, facilities that support high quality care for patients, high levels of information being passed around the nursing units, good working relationships between doctors and nurses, nurse participation in health care and hospital decision making, reasonable and fair levels of pay, an emphasis on nurse training and continuing education, and possibilities for career advancement [85].

Limitations of the research

Some limitations of the research should be noted to put the findings into a broader context. First, the sample of nurses in this exploratory study was relatively small (n=224) and was relatively young, inexperienced and had low levels of nursing education compared to North American and European samples. Second, it was not possible to determine the representativeness of those nurses that participated. Third, all data were collected using self-report questionnaires raising the possibility of response set tendencies. Fourth, data were collected at one point in time making it difficult to determine causality. Fifth, a few of the measures had levels of internal consistency reliability below the generally accepted standard of .70. Sixth, all respondents worked in research hospitals. It is not clear the extent to which our results would generalize to other samples of nurses working in other hospitals.

Future research directions

Future research needs to involve a larger and representative sample of nurses drawn from several different hospitals. In addition, to flow, the inclusion of other virtues such as hope, self-esteem, gratitude and would add to our understating of the relationship of various virtues with individual and organizational flourishing [86,87]. Future research should incorporate longitudinal designs to permit examination of causal directions and reciprocal relationships. Incorporating measures of flow at individual, unit and hospital levels would illuminate the link between various levels of analysis. Finally, efforts to increase the levels of flow at individual and unit levels appear to be a promising and necessary endeavor as well.

Footnotes

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