Original Article

Effect of Positive Psychology Interventions on the Quality of Prenatal Care Offered by Midwives: A Field Trial

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Abstract

Background: The quality of prenatal care has been recognized as critical to the effectiveness of care in optimizing maternal and child health outcomes. This study examined the effect of positive psychology interventions on the quality of prenatal care offered by midwives. **Materials and Methods:** This field trial was conducted on 60 midwives working in community health centers in Mashhad, Iran, from September 23, 2015 to March 20, 2016. Initially, centers No. 1 and No. 3 were selected via cluster sampling from among the five healthcare centers of Mashhad. Then, all subsidiaries of these centers were listed and assigned to intervention and control groups through simple random sampling. Thus, 60 midwives were randomly assigned to two equal intervention and control groups. The intervention, based on Seligman's Well-Being Theory, was presented weekly with homework in eight 2-h sessions. Before the interventions and immediately after the intervention, the Oxford Happiness Questionnaire (OHQ) and Ryff's Scales of Psychological Well-Being (SPWB) were completed by the midwives, and the Quality of Prenatal Care Questionnaire (QPCQ) was completed by two pregnant women for each midwife. **Results:** After the intervention, the mean [Standard Deviation (SD)] score of the overall quality of prenatal care in the intervention group was significantly higher than that of the control group [mean (SD) = 1.51 (0.49) vs. 0.05 (0.21); $t_{43,12} = 18.7$, $p < 0.001$]. **Conclusions:** It seems that improving the well-being of midwives through positive psychology interventions is effective on the quality of prenatal care provided by them.

Keywords: *Iran, mental health, positive psychology interventions, prenatal care, quality of health care*

Introduction

Prenatal care is the healthcare services that a pregnant woman receives from an obstetrician or a midwife. Broadly defined, it encompasses "the detection, treatment, or prevention of adverse maternal, fetal, and infant outcomes as well as interventions to address psychosocial stress, detrimental health behaviors such as substance abuse, and adverse socioeconomic conditions."[1]

Improving maternal health is the fifth Millennium Development Goal and it is based on the United Nations Maternal Mortality Estimation Inter-Agency Group (MMEIG), and so far, significant progress has been made in reducing maternal mortality all over the world. However, the global Maternal Mortality Ratio (MMR) declined by only 6.2% per year between 1990 and 2013. The pace of the progress has been insufficient for achieving the Millennium Development Goal aimed at reducing the MMR by 75% by 2015 compared with that in 1990.[2,3]

Most maternal deaths are preventable as the healthcare solutions to preventing or managing complications are well known.[3] Therefore, access to prenatal care does not suffice; in order to improve the health condition of mothers, the quality of these services must be regarded as an essential part of maternal and infantile outcomes.[4] Quality prenatal care is multidimensional and encompasses the structure of care (i.e., access, physical setting, and staff and care provider characteristics), clinical processes (i.e., health promotion and illness prevention, screening and assessment, sharing of information, continuity of care, nonmedicalization of pregnancy, and women-centeredness), and interpersonal care processes (i.e., respectful attitude, emotional support, approachable interaction

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style, and taking time). Interpersonal care processes reflect the psychosocial aspects of interactions between prenatal care providers and the women to whom they provide care.[1]

Midwives can provide high-quality prenatal care by "spending more time for patients during prenatal care, putting more emphasis on patient counseling and education, building trust, providing emotional support and empowering pregnant women".[5] However, in order to provide the most effective care, midwives should incorporate love and interest into their work in addition to their specialty and skills. Midwives are more likely to experience job burnout due to their stressful work. Job burnout affects individuals' occupational ability due to its effect on their physical and mental status. It increases absence from work and reduces organizational commitment as well as quality of work.[6] Domestic studies in Iran have reported undesirable mental states in midwives.[7-10] For instance, a study reported that the level of happiness of 63.3% of midwives working in healthcare centers of Mashhad, Iran, is below average and low.[11] It also reported a significant relationship between their level of happiness and their performance.[11] Thus, it is clear that in order to improve the quality of prenatal services offered by midwives, their mental health status has to be taken seriously. In a positive approach, mental health is not simply the lack of mental disorders.[12] In fact, positivists believe that positivism and negativism are not two sides of a single coin but are unique phenomena with their own exclusive events, mechanisms, and outcomes. Moreover, positivism can better reveal the potentials of individuals and lead to an outstanding performance.[13] In the positivist psychology approach, mental health is defined as a positive psychological function or, in other words, well-being. Seligman (2011), for instance, in his PERMA model, defined psychological well-being based on the five factors of Positive emotion, Engagement, Relationships, Meaning, and Accomplishment (PERMA).[14] According to this model, well-being is not a one-dimensional phenomenon, and its various components support each other in a way that one will not be promoted without the presence of the others.[15] Studies have demonstrated that the level of psychological well-being is significantly correlated with high levels of income, successful marriage, friendship and other relationships, and better health and job performance.[16] One of the approaches in positive psychology is to help individuals improve their well-being. Therefore, positive psychological interventions have been developed in positive psychology texts in order to ensure positive outcomes.[17] According to Sin and Lyubomirsky, an eminent figure in positivism, 50% of well-being is guaranteed by genes, 10% is determined by environment, and the remaining 40% is decided by the conscious activities of an individual.[18] Therefore, well-being can be improved and developed. Numerous studies have investigated the effects of positive psychology interventions on individuals' well-being and have proven their optimum influence. For instance, findings from an analysis on 51 positive psychology interventions[19] and a systematic review revealed the effectiveness of positive psychology interventions on the well-being of employees and individuals.[20] Another meta-analysis proved the significant relationship between well-being/happiness and job performance.[21] However, in this meta-analysis, there was a significant relationship, but the jobs were not in line with the midwifery and quality of prenatal care. Therefore, given that job burnout is the inevitable result of midwifery job, and based on the impact of positivism interventions on performance and well-being, the aim of the present study was to examine the issue of positivist interventions in midwives' society.

Materials and Methods

This study was a field trial (No. IRCT2016010225813N1) with control and intervention groups and was carried out for a period of 5 months from September 23, 2015 to March 20, 2016 in health centers in Mashhad, Iran. Considering power of 80%, Confidence Interval (CI) of 0.95, and effect size (*f*) of 0.70, 17 midwives were assigned to each study group. The effect size used to calculate the sample size was estimated based on the results of the pilot study. With respect to the probability of attrition, sampling was continued until 30 midwives (30 in each group) volunteered for taking part in the study according to the CONSORT method [Figure 1]. For the purpose of sampling, centers 1 and 3 were selected via cluster sampling method from among the five community health centers located in Mashhad. Subsequently, all centers and the subsidiaries affiliated to these centers were enlisted. Each of them was assigned a number from 0 to 113, and a small card with the corresponding number was issued. All the cards were placed in a box. Each time, after shaking the box, one card was randomly taken out, and the number was recorded successively as either the intervention group or the control group. This process was reiterated until all the centers were allocated to the intervention or control groups. Then, the researcher visited the intervention and control centers and invited all eligible midwives (who take care of mothers) to participate in the study. Based on the inclusion criteria, 60 midwives could participate in the study, 30 from the intervention centers and 30 from the control centers. The eligible midwives were allocated to the same group as the center was. In this way, the sharing of information between the two groups was prevented. Pregnant mothers were selected via convenience sampling method; the researcher visited the selected centers and invited two pregnant mothers cared for by each midwife to participate if they were willing and eligible (n = 60 pregnant women in each group). Since 13 midwives were excluded from the intervention group due to their irregular participation in the sessions, 26 pregnant women were excluded from the intervention group. At the end of the

intervention, the intervention and control groups consisted of 17 midwives and 34 pregnant women, and 30 midwives and 60 pregnant women, respectively [Figure 1]. The most important inclusion criteria included at least an associate degree in midwifery and 1 year of experience in working at community health centers, married, not pregnant, currently not undergoing psychotherapeutic or psychopharmacological treatment, lack of consumption of illegal drugs, lack of interest in participating for professional reasons (to prevent biased results), providing an informed consent, and not receiving a severity score from the Depression, Anxiety, and Stress Scale (DASS-21). Furthermore, the most important exclusion criteria included absence from more than one session during the course, occurrence of a stressful event for the participant during the course of the study, and not doing homework for three consecutive sessions. The inclusion criteria for the pregnant women included gestational age of 26–30 weeks, receiving care at least once from the midwife before 26 weeks of gestation, wanted and low-risk pregnancy. The exclusion criteria for the pregnant women included increasing the risks during the pregnancy, and occurrence of a major stressful event in the course of the study.

The data were collected using a personal information form and the following questionnaires. The personal information form included three sections of personal information, professional information, and lifestyle information for the midwives and demographic and pregnancy information for the pregnant women.

The 46-item Quality of Prenatal Care Questionnaire (QPCQ) was developed by Heaman *et al*. in 2014.[22] The QPCQ measures the quality of prenatal care based on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Items 8, 15, 23, 28, and 40 are reverse scored. The QPCQ consists of the six subscales of information sharing (9 items), anticipatory guidance (11 items), sufficient time (5 items), approachability (4 items), availability (5 items), and support and respect (12 items).

The sum value of the QPCQ subscales is computed and presented as the total score and can range from 46 to 230, with higher values indicating higher quality of prenatal care. The total score obtained is divided by 46, and the score of each subscale is divided by the number of questions. The number obtained ranges between 1 and 5 and is reported as the mean of each subscale. Heaman *et al*. reported a Cronbach's alpha of 0.96 and a test–retest correlation coefficient of 0.88 for the QPCQ after administration to 844 pregnant women 5–14 days after initial testing during the development study.[22] In this study, in order to ensure its validity, the original version of the QPCQ was first translated based on Brislin's back-translation model. Then, the questionnaire was given to seven lecturers in the Faculty of Nursing and Midwifery. In this feasibility study, the overall QPCQ had acceptable internal consistency reliability (Cronbach's alpha = 0.92) as did each of the subscales. The Cronbach's alpha of the subscales of information sharing, anticipatory guidance, sufficient time, approachability, availability, and support and respect were 0.65, 0.87, 0.65, 0.76, 0.68, and 0.91, respectively. The test–retest reliability result (intraclass correlation coefficient = 0.76) indicated the stability of the instrument on repeated administration after ~1 week. To determine the

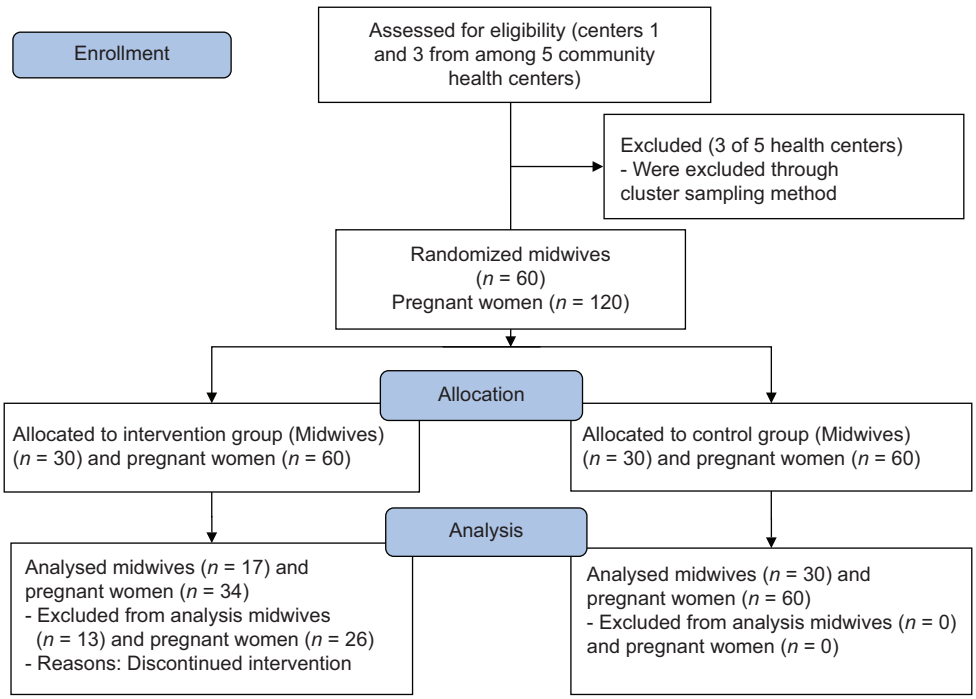

Figure 1: Flow of participants in the study

content validity of the questionnaire, the two methods of the Content Validity Ratio (CVR) of Lawshe (1975) and Content Validity Index (CVI) of Lane (1986) were used sequentially. The CVR of the QPCQ was 0.91 and the CVI was 0.89, 0.89, and 0.87 for the simplicity criterion, specificity criterion, and resolution criterion, respectively, which confirms the content validity of the Persian version of the QPCQ for use in domestic investigations.

Ryff's Scales of Psychological Well-Being (SPWB; 84 items) was developed by Ryff for the evaluation of six dimensions of psychological well-being including autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The reliability and validity of the questionnaire was approved in several studies.[23] Moreover, this scale had a positive correlation with the positive psychiatry list developed by Rashid and Seligman to measure individuals' level of welfare using the five subscales of positive emotions, engagement, meaning, relations, and accomplishment.[24] The Persian Version of the SPWB was used in this study.

The Oxford Happiness Questionnaire (OHQ) is a 29-item measure of happiness developed by Argyle and Hills that utilizes a six-point rating scale of agreement ranging from 1 (strongly agree) to 6 (strongly disagree). The reliability of this scale was found to be 0.93. The reliability and validity of this questionnaire have been approved in various studies.[25] The Persian Version of the OHQ was used in this study.

The demographic information form and the OHQ and SPWB were given to the midwives to be filled. After obtaining a written consent from the two pregnant women to observe the care services provided for them, the

Table 1: Summary of the content of training sessions based on Seligman's PERMA* model

First session	Briefing: Participants' familiarization with the research team, introduction of steps and details of the course, definitive registration for participation in the course, discussing about the issues raised in relation to the shortage or lack of positive resources such as positive emotions, commitment, positive communication, meaning, and the characteristic capabilities in the emergence of depression, anxiety, and absurdity
	Homework: Writing objective stories of one's own positive characteristic capabilities
Second session	Objective: Defining happiness, obstacles to lasting happiness, kinds of happy life, satisfaction in the past, the logic of paying attention to appreciation exercises, training appreciation, the logic of learning forgiveness, and teaching forgiveness
	1- Homework: Preparing a booklet and writing three positive life events, writing a letter of gratitude and appreciation and presenting it to the desired person
	2. Writing a letter of forgiveness
Third session	Objective: Review of homework of the last week, the logic for addressing the pleasures of life, introduction of all kinds of pleasures in the present, ways to enhance pleasures, ways to avoid the normalization of pleasures
	Homework: During the next week, performing at least one of the exercises of either of the two strategies (pleasure enhancement techniques: 1 - avoiding habits, 2 - enhancing the quality of pleasure, and 3 - attention and presence, or planning a pleasant day)
Fourth session	Objective: Presentation of the logic of addressing optimism and defining optimism about the future
	Homework: During the next week, whenever you experience many negative emotions in terms of severity, try to discover your negative beliefs, then, question them and discredit them. Then, record ABCDE** and complete the ABCDE table for three to five negative events during the next week.
	2. Recall three times you have lost in your life, your plan failed or was rejected, and then, identify the doors that opened to you as a result of these seemingly negative events.
Fifth session	Objective: Presentation of the logic of addressing your own special abilities and virtues, revitalizing capabilities and virtues, implementing the capabilities and virtues questionnaire, discovering five of your own capabilities and virtues
	Homework: Exercising discovering 5 capabilities and virtues in yourself and your spouse
Sixth session	Objective: Presentation of the logic of using one's capabilities in life, encouraging subjects to use their abilities and virtues in the core areas of life, work, and personal satisfaction, re-defining occupation, occupation and professions versus mission, capabilities and virtues in marital life
	Homework: Using one's abilities in a new way, especially in the work environment
Seventh session	Objective: Finding meaning through the use of outstanding capabilities when serving others and especially your clients in the workplace
	Homework: Designing new ways to apply outstanding capabilities to serve others, and especially your clients
Eighth session	Objective: Providing education to people about active-constructive response to the good news they receive from others, training constructive and active response as an approach to enhance positive communication
	Homework: Providing a worksheet for four styles of responding to good events in the lives of others and a "Magic Five Hours" for Relationship Enhancement (Gottman and Silver, 1999)

*PERMA: Positive emotion, Engagement, Relationships, Meaning and Accomplishment, **ABCDE: Adversity, Belief, Consequences, Disputation, Evidence

researchers asked the pregnant woman to complete the QPCQ. For each midwife, two pregnant women had to fill out this questionnaire. Then, two of the researchers with a PhD degree in clinical psychology (teacher of positive psychology workshops) and a midwifery postgraduate student, who had received a positive psychology workshop certificate, conducted eight 2-h training sessions (per week) for the intervention group [Table 1]. The intervention group was divided into two groups of 15 people. For group No. 1, the sessions were held on Saturdays and Wednesdays (in the afternoon), and for group No. 2, they were held at the "Sib" Consultation Center from 16:00 to 18:00 on Saturdays and Thursdays. Immediately after the interventions, the OHQ and SPWB were completed by midwives and by the intervention group members. The control group did not receive any intervention. After the intervention, the researcher made an appointment with the control group midwives at the health centers and provided them with the OHQ and SPWB. After the intervention, the researchers contacted the pregnant women in both groups again to ask about the time of their prenatal care. Then, each pregnant woman attended the center, and after being provided with antenatal care by her midwife, the pregnant woman was asked to complete the QPCQ. After the intervention, two QPCQs were completed for each midwife by the same pregnant woman who had completed the questionnaire before the intervention, and who did not meet the exclusion criteria during the study. The mean score of the two QPCQs completed before and after the intervention was considered as the total average of pre-intervention quality of prenatal care, and total average of post-interventions quality of prenatal care, respectively. However, no pregnant woman was eliminated from the control group. The data collected were analyzed using independent and paired *t*-test, Mann–Whitney *U*, Wilcoxon rank sum test, and descriptive statistics in SPSS software (version 19.0, SPSS Inc., Chicago, IL, USA). All *p* values of <0.05 were considered as significant.

Ethical considerations

During the study, all moral codes imposed by Mashhad University of Medical Sciences, Mashhad, were observed carefully. The most important codes were obtaining written permissions from the Ethics Committee of the university under the number IR.MUMS.REC.1394.447, obtaining an introduction letter from the Faculty of Nursing and Midwifery of Mashhad University of Medical Sciences for Community Health Centers No. 1 and 3, receiving their letters of introduction for centers and sub-centers, obtaining written consent from the research units for their participation in the study, ensuring confidentiality of the data, and presenting the overall results.

Results

The control and intervention groups were not homogeneous with respect to age (t_{54} = 3.91, p = 0.010), employment status (χ^2 = 17.48, p < 0.001), and work experience ($t_{39,58}$ = 5.40, p < 0.001); however, they were homogenous in terms of the levels of depression, stress, anxiety, education, economic status, and job satisfaction, and having a second job, and professional stress (p > 0.050). Moreover, at the beginning of the study, the difference between the control and intervention groups in terms of lifestyle factors including doing sports during the day and night, having enough sleep during the day and night, resting time during the day and night, performing religious services, and life satisfaction was not statistically significant (p > 0.050).

Mann–Whitney test results showed that the difference in mean [Standard Deviation (SD)] scores of happiness and well-being of the intervention and control groups at the beginning of the study was not statistically significant (p > 0.050). Nevertheless, at the end of the study, this difference was significant (t_{42} = 4.16, p < 0.001; Z = 5.65, p < 0.001) [Table 2]. According to the results of the covariance test, the effect of the variables that were not homogeneous at the beginning of the study was not significant on midwives' happiness and well-being scores (p > 0.050), and only the effect of the interventions was significant [Table 3].

The mean (SD) age of the pregnant women was 28.78 (5.94) years (age range: 16–46 years). No significant statistical difference was observed between the two groups of pregnant women in terms of their age, job, spouse's job, level of education, having health insurance, pregnancy history, childbirth history, number of children, abortion history, history of having stillborn child, importance of child's gender for the mother, and spouse's satisfaction with the pregnancy (p > 0.050).

Table 2: Comparison of happiness and well-being scores between the intervention and control groups

Phases	Variables	Intervention group Mean (SD)	Control Group Mean (SD)	Mann-Whitney test			Independent *t*-test	
				t	df	*p*	*Z*	*p*
Before the intervention	Happiness	118.10 (25.40)	122.41 (27.27)				0.84	0.390
	Well-being	293.26 (93.30)	310.50 (76.86)				0.63	0.520
Immediately after the intervention	Happiness	144.70 (23.40)	100.10 (3.33)				5.66	<0.001
	Changes	16.13 (31.28)	−22.70 (27.74)	4.16	42	<0.001		
	Well-being	383.88 (42.82)	297.03 (3.75)				5.65	<0.001
	changes	−13.46 (14.11)	86.76 (30.70)				3.68	<0.001

The total mean (SD) prenatal care quality score was 3.06 (0.52) in the intervention group and 3.05 (3.06) in the control group. However, after the intervention, this score was 3.20 (0.51) in the intervention group and 3.06 (0.28) in the control group. The results of the Mann–Whitney test indicated that the pre-intervention total mean score of the prenatal care quality was not significantly different between the two groups ($p > 0.050$), but after the interventions, it was significantly higher in the intervention group than in the control group ($Z = 7.85$, $p < 0.001$) [Table 4].

Table 3: Covariance analysis to examine the effect of confounding variables on the midwives' psychological well-being score and midwives' happiness score

Well-being parameter	*B*	Standard error	*t*	df	*p*
Intervention group	64.47	17.19	3.75	1	0.001
Control group	-	-	-	-	-
Employment					
Permanent	−3.39	20.28	−0.16	2	0.868
Contractual	19.33	17.06	1.13		0.265
Others	-	-	-		-
Age (year)	−1.14	1.22	−0.92	1	0.359
Work experience	0.23	0.14	1.65	1	0.107
Happiness parameter					
Intervention group	41.58	9.14	4.54	1	< 0.001
Control group	-	-	-	-	-
Employment					
Permanent	−2.86	11.15	−0.25	2	0.799
Contractual	−1.12	10.78	−0.10		0.918
Others	–	–	–		–
Age (year)	−0.43	0.65	−0.65	1	0.515
Work experience	0.65	0.75	0.87	1	0.389

Comparison of the mean score of each dimension of the QPCQ between the intervention and control groups has been presented in Table 4. Moreover, comparison of the mean (SD) score of each dimension of the QPCQ in the intervention group before and after the intervention has been presented in Table 5. In the control group, the mean (SD) scores of the subscales of availability and sufficient time were 3.02 (0.33) and 3.32 (0.29) before the intervention and 2.82 (0.29) and 3.56 (0.26) after the intervention, respectively. The results of the paired *t*-test and Wilcoxon test indicated that of the difference in the mean (SD) scores of the subscales of availability and sufficient time in the control group before ($t_{3,\ 32} = 59$, $p = 0.022$) and after the intervention ($Z = 4.11$, $p < 0.001$) was statistically significant [Table 5].

Discussion

The results of this study showed that the positive psychology intervention in midwives significantly increased the mean total score of the quality of prenatal care provided by these midwives. The mean score of all dimensions of prenatal care quality in the intervention group increased significantly after the intervention and reached a desirable

Table 4: Comparison of the score of the Quality of Prenatal Care Questionnaire and its dimensions between the intervention and control groups

Phases	Variables	Intervention group Mean (SD)	Control group Mean (SD)	Independent *t*-test			Mann-Whitney test	
				t	df	*p*	*Z*	*p*
Before the intervention	Overall mean of prenatal care quality	3.06 (0.52)	3.05 (3.06)				1.93	0.053
	Information sharing	3.20 (0.51)	3.06 (0.28)				1.93	0.540
	Anticipatory guidance	1.96 (0.72)	1.96 (0.37)				1.44	0.140
	Sufficient time	3.45 (0.49)	3.32 (0.29)				1.32	0.180
	Approachability	3.37 (0.32)	3.49 (0.31)				2.59	0.009
	Availability	2.89 (0.48)	3.02 (0.33)				3.26	0.001
	Support and respect	3.45 (0.46)	3.70 (0.27)				1.46	0.020
Immediately after the intervention	Overall mean of prenatal care quality	4.57 (0.18)	3.11 (0.10)				7.85	<0.001
	Changes	1.51 (0.49)	0.05 (0.21)	18.70	43.12	<0.001		
	Information sharing	4.86 (0.21)	3.10 (0.17)					<0.001
	Changes	1.50 (0.56)	0.04 (0.30)					<0.001
	Anticipatory guidance	3.89 (0.51)	2.05 (0.23)					<0.001
	Changes	1.80 (0.74)	0.11 (0.44)	11.95	48.76	<0.001		
	Sufficient time	4.90 (0.17)	3.56 (0.26)					<0.001
	Changes	1.73 (0.56)	0.25 (0.40)					<0.001
	Approachability	3.85 (0.49)	3.58 (0.21)					<0.001
	Changes	0.46 (0.62)	0.07 (0.37)					<0.001
	Availability	4.25 (0.37)	2.82 (0.29)					<0.001
	Changes	1.40 (0.58)	−0.20 (0.44)					<0.001
	Support and respect	4.94 (0.08)	3.74 (0.27)					<0.001
	Changes	1.42 (0.53)	0.05 (0.41)	13.48	84	<0.001		

Table 5: The score of the Quality of Prenatal Care Questionnaire and its dimensions before and after the intervention

Variables	Intervention group Paired *t*-test			Control group Paired *t*-test		
	t	df	*p*	*t*	df	*p*
Overall mean of QPCQ	18.19	33	<0.001	1.83	59	0.072
Information sharing	15.48	33	<0.001	0.99	59	0.320
Anticipatory guidance	45.20	33	<0.001	1.83	59	0.073
Support and respect	15.78	33	<0.001	0.87	59	0.382
Availability				3.32	59	0.022
	Wilcoxon test			Wilcoxon test		
	Z		*p*	*Z*		*p*
Availability	5.09		<0.001			
Approachability	3.29		0.001	1.44		0.140
Sufficient time	5.02		<0.001	4.11		<0.001

QPCQ: Quality of Prenatal Care Questionnaire

level. The mean score of the sufficient time dimension in the control group had slightly increased at the end of the study. This increase is mainly due to providing the majority of consultations at the end of the pregnancy and, therefore, spending more time on the viewpoints of pregnant mothers. The mean score of the availability dimension decreased significantly after the intervention compared to before the intervention in the control group. The possible cause of this reduction is that towards the end of the pregnancy, women often deal with very important questions, and they cannot wait for the next meeting to find their answers. As a result, access to prenatal care providers by telephone or sending more messages seems necessary. The results of this study regarding the effects of positive psychology intervention on the participants' performance and increasing their well-being are consistent with those of other studies. For example, conducting seven online training sessions of positive psychology intervention for 147 German workers from among 4,330 workers of a local insurance company showed a significant increase in the participants' happiness and well-being.[26] In another experimental study, it was reported that positive psychology interventions significantly increased positive emotions and self-efficacy among employees in the intervention group.[27] A pilot intervention study based on the five components of Seligman's (2011) well-being theory reported that there are effective strategies for increasing well-being and ameliorating depressive symptoms, and positive psychology interventions are most effective for those people in the middle range of the well-being continuum.[17] A randomized study with a control group reported a significant improvement in self-evaluated or manager-evaluated performance after the psychological capital intervention.[28] In another experimental field study, it was found that manager's positivism led to a significant quantitative and qualitative improvement in the solutions devised by employees to address current problems; employees' positivism also had a significant impact on this variable.[29] The results of two Iranian studies also showed a positive and significant association between nurses' job performance and psychological well-being[30] as well as between midwives' happiness and communicative performance.[11] In explaining the role of positivism interventions on the quality of antenatal care provided by midwives, one of the main findings of this study is that positive psychological interventions increase the level of happiness and well-being of midwives. According to Fredrickson's broaden-and-build theory, positivism (biologically) facilitates the process of creating and expanding cognitive, physical, and social resources.[31] These developed resources can lead to social communication, increased flexibility, and increased likelihood of optimal performance.[32] These issues can undeniably improve the quality of pregnancy care. In general, by promoting the five components of well-being (positive excitement, passion, meaning, positive relationships, and achievement) in midwives, an improvement was observed in all dimensions of the quality of pregnancy care, and in particular, the interpersonal care process, which have been measured in the dimensions of support and respect, approachability, and sufficient time. In this regard, previous studies have shown that positive relationships result in more bonding, information exchange, interpersonal interaction, and positive emotions among individuals. This bond is a tool for creating resources and coordinating actions in the organization.[30] Since coordinated exchange, in turn, contributes to the formation of the required social capital and concurrency, it provides the possibility of higher productivity and quality.[33] Moreover, improving the interpersonal care process can affect the satisfaction of pregnant women as recipients of services in evaluating other dimensions. Accordingly, Handler *et al*. reported that some measures, such as the interaction between the patient and the health personnel, were more effective than others.[34] In addition, part of the intervention was to identify the strengths and capabilities, and present assignments for the development and application of daily routine skills and capabilities of midwives in their field of work in order to redefine the job and turn it into a career in human services. In line with the sense of duty and internalization in work, this orientation is associated with the concept of meaningful work. Most people who consider their work a service and believe that what they do is right and good, feel that their work is meaningful.[35] In fact, when employees of health care organizations have a high level of sense of service, a high level of performance will be achieved.[36] In general, by changing the meaning of a job and turning it into a service, people feel that their job is meaningful,[34] and as a result, they will experience more job excitement, which in turn will lead to better performance.[37]

The strength of this study is that it investigated the effect of positive psychology intervention on the quality of

midwifery care instead of examining the correlations alone. Its weakness is the lack of follow-up for re-evaluation of the effect positive psychology intervention had on happiness and well-being. Another weakness of the study is the lack of a placebo group or another intervention to compare with positive psychology intervention since the observed effect may only be due to the training process and not the type of intervention. The researchers encountered some restrictions in this study; for example, the individual differences of the midwives in motivation, level of learning, and correct performance of homework of the sessions affected the study results and could not be controlled by the researchers; therefore, they attempted to partially control them through random allocation. Another limitation is the bias resulting from observing midwives' provided care by the researcher, which could be different from their actual behavior.

Conclusion

In general, the findings indicate the positive effects of positive psychology interventions on the quality of antenatal care provided by midwives. Hence, it seems that improving midwives' well-being by implementing positive psychology interventions will improve the quality of prenatal care provided by them.

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Conflicts of interest

Nothing to declare.

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