

Review Article

Women's Social Health and Related Factors in Iran: A Systematic Review and Meta-Analysis

Batool Tayefi ¹, **Zahra Rampisheh** ¹, **Neda SoleimanvandiAzar** ¹, **Elham Zandian** ²,
Ali Amirkafi ³, **Mozhdeh Ramezani** ¹, **Maryam Hajigholam-Saryazdi** ⁴,
Sepideh Alibeyk ⁴, **Seyed Amir Yasin Ahmadi** ³, and **Marzieh Nojomi** ^{1,5}

¹Preventive Medicine and Public Health Research Center, Psychosocial Health Research Institute, Community and Family Medicine Department, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

²Endocrinology and Metabolism Research Center, Hormozgan University of Medical Sciences, Bandar Abbas, Iran

³Preventive Medicine and Public Health Research Center, Psychosocial Health Research Institute, Iran University of Medical Sciences, Tehran, Iran

⁴National Nutrition and Food Technology Research Institute, Shahid Beheshti University of Medical Sciences, Tehran, Iran

⁵Iranian Academy of Medical Sciences, Tehran, Iran

Correspondence should be addressed to Marzieh Nojomi; mnojomi@gmail.com

Received 1 March 2023; Revised 31 January 2024; Accepted 10 February 2024; Published 29 February 2024

Academic Editor: Tushar Singh

Copyright © 2024 Batool Tayefi et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Women's health is the foundation of society's health and it can be achieved only by addressing all aspects of their health. The aim of this systematic review and meta-analysis is to investigate the prevalence of social health of Iranian women and related factors. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was used for reporting; the terms "social health," "women," "Iran," and related keywords were searched in PubMed, Web of Science, Scopus, PsychoInfo, ProQuest and local databases, SID, Magiran, Irandoc, Elmnet, and Noormags up to August 2022. The published English or Persian quantitative primary studies which were conducted in Iran and reported social health or its dimensions among Iranian women were included. The studies were assessed by quality assessment tool for observational cohort and cross-sectional studies developed by National Heart, Lung, and Blood Institute. From the 786 studies retrieved, 22 studies were finally included surveying different groups of women. Age, marital status, education, employment, socioeconomic status, social support, social participation, social trust, social security, communication skills, and self-esteem were the factors affecting women's social health. Five studies entered meta-analysis and mean score of social health was 98.54 (95% CI: 87.56–109.51) and it was the lowest among women who were the head of households. Since women's social health has been less considered in the society and research studies, further policies, legislations, and capacity building in mentioned fields are necessary. As social health is an important aspect of health, it is necessary for governments to address the known determinants of women's social health in order to plan and promote the health of women, family, and finally society.

1. Introduction

Health is "a state of complete physical, mental, and social health and not merely the absence of disease or infirmity" [1]. Social health as the quality of an individual's relationship with others in the community refers to one's understanding of the community as a meaningful, understandable, and potentially powerful source of growth and prosperity. It is a feeling of belonging to the community and sharing our

own experience in society and its progress. According to this definition, social health has five dimensions: social acceptance, social integration, social actualization, social contribution, and social coherence [2–4].

Nowadays, women's social health and its related factors, alongside their physical and mental health, are of considerable interest in health research [5–7]. Studies have shown that women are a socially disadvantaged and vulnerable population [8–10]. Women experience multiple roles in a society

(e.g., maternity, nurture, contribution to the household income, being a partner, and having major responsibility for the care of the family), besides that, at the same time, they are faced with expectations of society in association with their gender roles [11, 12]. Moreover, the female gender is a predictor of lower social and economic position, lower participation in decision making, and lower payment [11, 13].

Compared with men, women are less likely to be employed full time, to occupy top positions in society, more likely to be attuned to caring roles, to have their working life interrupted by pregnancy, and caring responsibilities [12, 13]. Additionally, women's economic dependence on men is signified by the dramatic change in their lives after divorce or separation. It is not surprising that women also have lower self-esteem and are more likely to be concerned about body image [13]. This wide conceptualization of health and social health allows a more comprehensive examination of all mental and cognitive factors that are related to individuals' perception of their optimal performance in their living environment [2, 3, 6, 14]. Also, women's health is representative of a family's overall health. Undoubtedly, families' and societies' health is tied to the health of women [5].

Social health is a complex aspect of health. It is affected by many individuals, family, and community factors. In case of women, because of the existing gender inequalities, social health should be addressed more carefully. The social health of women in Iran was studied by many surveys. The mean score of women's social health based on Keyes' social health questionnaire, in these studies was between 72 to 115 (range of score: 0 -132) [6]. It means the social health is moderate to high. It is reported that social health among Iranian women is affected by level education, position in the society, being the head of the household, and social factors such as social security and support [6]. The "Global Gender Gap Index" is an important factor to predict the social health; this index is reported by world economic forum and investigates the state of gender inequality across four domains; economy, health, education, and political empowerment [15]. The rank of our country is not acceptable according to this index; therefore, we have to work more on indicators of social health for women. Social health as a fundamental factor of Iranian women's health is vastly influenced by this wide gender gap [15]. Despite these facts, there are not any comprehensive studies to determine the overall situation in Iran and define its causes. Therefore, the systematic review and meta-analysis of social health and its related factors among Iranian women seems to be a crucial issue to obtain basic information to promote and plan for their health status. Thus, this study aimed to draw a holistic picture of Iranian women's social health and determine the related factors.

2. Materials and Methods

2.1. Study Design. This systematic review reviewed all available published articles which examined the social health and its related factors among Iranian's women. This systematic review was performed in accordance with PRISMA guidelines. The study was approved by Academy of Medical Sciences of Iran with code number D/FAP/1/9605.

2.1.1. Search Strategy. An extensive search of relevant studies was conducted in the main international electronic data sources PubMed, Web of Science, Scopus, PsychoInfo, and ProQuest; in addition, domestic databases, including SID (Scientific Information database), Magiran, Irandoc, Elmnet, and Noormags systematically using both Persian and English languages from their inception to August 2022 to identify relevant articles. To have a more comprehensive search, the medical subject headings (Mesh) including entry terms of PubMed and the Emtree of SCOPUS were used. The Persian keywords equivalent to their English search terms were used for national search. In addition to find more eligible studies, the reference lists of relevant publications were hand-searched.

Following keywords were finalized for conducting the systematic search; social health, social integration, social acceptance, social contribution, social actualization, social coherence, social determinant of health, Woman, Women, female, *femen**, Iran, IRI, and Iranian (see Table 1 for search strategy and findings from databases).

2.1.2. Inclusion and Exclusion Criteria. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement was used for reporting the results [16]. Studies were included in this current systematic review if they fulfilled the following defined criteria: (i) including observational and interventional studies of which their full-texts were available; (ii) the sample included Iranian women; (iii) the studies that reported social health status and main aspects of social health consist of social integration, social acceptance, social contribution, social actualization, social coherence and social determinant of health, and social health-related factors; and (iv) studies were conducted in Iran. We limited the search results to the studies published in English or Persian language in Iranian women, and to the period from their inception to August 2022.

Qualitative studies, review articles, opinion pieces, editorials, commentaries, letters, technical reports, or any other publications lacking primary data, and those not published in the English or Persian languages were excluded. Moreover, the studies arranged in women with characteristics that could not be generalized to the normal population were excluded.

The results of each of databases' search imported to Endnote library. Duplicated studies were deleted. The selection process of the remained articles was carried out by two of the authors, BT and ZR, independently in three steps of title, title/abstract and full text review for relevancy. Disagreements regarding the study inclusion criteria were resolved through consensus or consultation with a third author.

2.1.3. Data Extraction and Quality Assessment. Data from selected eligible articles were extracted using a standardized data extraction sheet: (i) name of the first author; (ii) publication date; (iii) study design; (iv) geographic location of the study (rural and urban); (v) sampling method; (vi) sample size; (vii) mean age of participants; (viii) quality assessment (good, fair, and poor); (ix) measurement tools; (x) outcomes (social health, each domain of social health, and social health-related factors); and (xi) and the main result of the studies (mean score or correlation coefficient). (Tables 2 and 3).

TABLE 1: Search strategy in selected databases and the number of studies at each step.

Search strategy	Database	Preliminary searches	Piloting of the study selection process	Formal screening of search results against eligibility criteria
(“Social health”[tiab] OR “social integration”[tiab] OR “social acceptance”[tiab] OR “social contribution”[tiab] OR “social actualization”[tiab] OR “social coherence”[tiab] OR “social determinant of health”)[tiab] AND (Woman [tiab] OR women [tiab] OR female [tiab] OR femem* [tiab]) AND (Iran [tiab] OR IR.A [tiab] OR Iranian [tiab])	PubMed	89		
Title-abstract-key = (“social health” OR “social integration” OR “social acceptance” OR “social contribution” OR “social actualization” OR “social coherence” OR “social determinant of health”) AND (woman OR women OR female OR femem*) AND (Iran OR IR.A OR Iranian)	SCOPUS	272		
Topic = (“social health” OR “social integration” OR “social acceptance” OR “social contribution” OR “social actualization” OR “social coherence” OR “social determinant of health”) AND (woman OR women OR female OR femem*) AND (Iran OR IR.A OR Iranian)	Web of Science	61	85	22
Abstract = (social health AND women OR female AND Iran)	PsycInfo	47		
ABSTRACT,TITLE(“Social health” OR “social integration” OR “social acceptance” OR “social contribution” OR “social actualization” OR “social coherence” OR “social determinant of health”) AND (woman OR women OR female OR femem*) AND (Iran OR IR.A OR Iranian)	ProQuest	186		
“Social health” OR “social integration” OR “social acceptance” OR “social contribution” OR “social actualization” OR “social coherence” OR “social determinant of health”) AND (woman OR women OR female OR femem*) AND (Iran OR IR.A OR Iranian)	Persian databases	121		

TABLE 2: Main characteristics of included studies.

No	First author	Year	Study design	Location of the study	Sampling method	Sample size		Age range or mean age	Result of quality assessment
						Female	Male		
1	Masti and Fakhrayi [18]	2014	Cross-sectional survey	Urban (maragheh)	Multistage random sampling	380	0	Min: 25 Max: Not reported	Fair
2	Rastegar et al. [19]	2015	Survey	Urban (shiraz)	Multistage cluster sampling	374	0	Min: 18 Mean age: 46.25	Fair
3	Yahyazadeh and Ramezani [20]	2013	Survey	Urban (Qurveh)	Multistage cluster sampling	184	0	25–65	Fair
4	Farokhnezhad Afshar et al. [21]	2017	Cross-sectional	Urban (Tehran)	Multistage cluster sampling	226	324	Min: 60 Mean age = 66.10 ± 6.68	Fair
5	Shokrollahi nezhad [22]	2016	Cross-sectional survey	Urban (Tehran)	Random	182	0	18–45	Fair
6	Mohammadi Asl [23]	2016	Cross-sectional survey	Urban (Khoy)	Simple random sampling	168	0	16–52	Fair
7	Hemmati et al. [24]	2013	Survey	Urban (Roudehen)	Random stratified sampling	140	0	Not reported	Fair
8	Nikvarz [25]	2018	Survey	Urban (Kerman)	Cluster sampling based on the 4 areas of the municipality	380	0	15–45	Fair
9	Shahbazi et al. [26]	2017	Survey	Rural (Ghaiaeshahin district in the province) of Kermanshah	Two-stage cluster sampling	209	0	15–63	Fair
10	Kamali Dehghan [27]	2012	Survey	Urban (Karaj)	Multistage cluster sampling	138	128	Min: 19 Max: Not reported	Fair
11	Hossaini Haji Bakandeh and Taghipour [28]	2010	Survey	Urban (Tehran)	Multistage cluster sampling	340	0	Not reported	Fair
12	Bokharate et al. [29]	2015	Survey	Urban (Tehran)	Multistage cluster sampling and random sampling	385	0	18–55	Fair
13	Safiri and Mansoirian Ravandi [30]	2015	Survey	Urban (Tehran)	Cluster sampling	180	240	18–29	Fair
14	Yazdanpanah and Samadian [31]	2008	Survey	Urban (Kerman)	Multistage cluster sampling	298	0	Min: 16 Max: Not reported	Fair
15	Najaf Abadi Azam [7]	2011	Survey	Urban (Esfahan)	Classification corresponding to individual distribution	200	0	15–24	Fair
16	Ahmadvand and Sharifzadeh [32]	2011	Survey	Rural (Boyer-Ahmad county)	Multistage cluster sampling	250	0	Min:16 Max: Not reported	Fair
17	Alizadeh et al. [33]	2014	Survey	Urban (Kerman)	Cluster sampling	300	0	18–73	Fair
18	Farahmand et al. [34]	2016	Survey	Urban (Yazd)	Multistage cluster sampling	566	0	19–62	Fair
19	Azizmohammadi et al. [35]	2019	Cross-sectional	Urban (Baharestan county)	Convenience sampling	291	0	28–50 22.75 ± 3.01	Fair
20	Sharbatian et al. [36]	2020	Cross-sectional	Urban (Ferdoors city in south Khorasan)	Multistage (cluster, random)	304	0	20–45 29.69	Fair
21	Amirifar et al. [37]	2020	Cross-sectional	Urban (Ahvaz)	Multistage (cluster, random)	384	0	≥18	Fair
22	Atefi Hanzani et al. [38]	2021	Cross-sectional	Urban (Rasht)	Multistage cluster sampling	358	0	Mean 43.85 (7.55)	Fair

TABLE 3: Detailed outcome of included studies.

Row	Population subgroups	Measuring tools	Outcome	Results (mean score or r)
1	Women living in Maragheh city	Keyes social health questionnaire and a researcher-made questionnaire of employment status	Employment status and social health	The mean of social health in employed women was 3.81 and in housewives was 3.037. ($P < 0.001$); this mean, among employees, was higher in formal part-time employees than informal full-time employees. ($P < 0.001$)
2	Women over 18 years old living in Tehran	Researcher-made questionnaire of social security and Keyes social health questionnaire	Social security and social health	There was a significant relationship between the feeling of social security and social health and all five dimensions. ($R = 0.35$ and $P < 0.001$); the strongest correlation was seen between the feeling of social security and the two dimensions of social cohesion and adaptation. ($R = 0.74$ and $r = 0.61$, respectively)
3	Women heads of households in Qorveh city	Keyes social health questionnaire and researcher-made questionnaire of religious beliefs and communication skills	Social health and factors affecting it	The mean score of social health in female-headed households was 81.84 ± 14.479 and it was lower than non-female-headed households with 110.65 ± 14.231 ($P < 0.001$). There was no significant difference between the effect of socioeconomic status on social health between the two groups of heads of households and nonheads of households. There was no significant difference between the effect of religious beliefs on social health between the two groups of heads of households and non-heads of households. There was a significant relationship between communication skills and social health ($P < 0.001$). But there was no significant difference between the effect of communication skills on social health between the two groups of heads of households and nonheads of households
4	Older adult in Tehran	Social wellbeing scale (SWS) and social Adaptation self-evaluation scale (SASS)	Social function and social wellbeing	Social wellbeing score in females' was 137.91 ± 32.45

TABLE 3: Continued.

Row	Population subgroups	Measuring tools	Outcome	Results (mean score or <i>r</i>)
5	Female heads of households who have been supported by the Relief committee of district 4 of Tehran for more than one year and are up to 45 years old	Keyes social health questionnaire and researcher-made questionnaire for measuring religious beliefs	The effect of religious beliefs on social health	The mean of social health was 67.60 ± 10.06 (mean level). Correlation between religious beliefs and social health was 0.157 ($P < 0.05$), correlation between religious beliefs and social health was 0.099 and correlation between religious behaviors and social health was 0.09 and correlation between divine interactions and social health was 0.196 ($P < 0.01$)
6	Women heads of households under the auspices of the welfare organization	Keyes social health questionnaire and Religiosity questionnaire (a researcher-made questionnaire)	The social health and its related factors	The mean of social health was 32.92 ± 64.13 and it indicated moderate and low level of social health. Social security had a positive and significant relationship with social health. ($r = 0.24$) ($P = 0.001$). There was no significant correlation between religiosity and its dimensions with social health. ($r = 0.054$) ($P = 0.49$) There was a weak & significant relationship between social laziness and social health. ($r = 0.153$) ($P = 0.048$). There was a very weak and insignificant relationship between socioeconomic status and social health. ($r = 0.004$) ($P = 0.95$)
7	All women heads of households under the auspices of the Relief committee in the city of Roodehen	Keyes social health questionnaire, researcher-made social health questionnaire, and researcher-made social support questionnaire	The relationship between social support and social health	There was a significant and positive correlation between social support with social health. ($R = 0.37$, $P < 0.001$). The dimensions of social health also had a statistically significant correlation with social support
8	Women aged 15–45 living in Kerman city in 2015	Keyes social health questionnaire & social security questionnaire with 24 questions	The relationship between social security and social health	68.6% of women in Kerman had moderate level of social health, 17.8% had high and 19.2% had low. There was a significant and positive correlation between security and social health as a whole. ($R = 0.82$) ($P = 0.001$) and the relationship with each of the dimensions of social health was significant and positive. Also, there was a significant relationship between the variables of marriage and employment status and social health, so that married women had higher social health than single women and working women had higher social health than unemployed women

TABLE 3: Continued.

Row	Population subgroups	Measuring tools	Outcome	Results (mean score or <i>r</i>)
9	Rural women of Qaleh Shahin section of Kermanshah province	Keyes social health questionnaire and A researcher-made questionnaire to assess the socioeconomic status, the level of social support and the level of communication skills and challenges to achieve social health	Social health and its challenges	The level of social health of rural women with an average of 3.157 was moderate level. Among the independent variables studied, the three variables of communication skills, active recreation and watching TV ($\beta = 0.5$, 0.2 and 0.17, respectively) had a positive and significant relationship with social health. Also, non-female-headed households had higher levels of social health compared to female-headed households (mean 0.19 more social health and $P = 0.02$), but there was no relationship between age, education and socioeconomic status and social health. Social support showed a significant relationship in bivariate analysis but this relationship was not confirmed in regression. Challenges of achieving social health of rural women were: economic, cultural, individual, institutional and management challenges. The most important challenge was the economic challenge that covered 13.43 percent of the total variance
10	All men and women in Karaj who have once been married	Keyes social health questionnaire and attitude towards domestic violence questionnaire	The relationship between social health and attitudes toward domestic violence	Women's social health correlated with their attitudes toward domestic violence (qualitative ranking analysis). ($r = 0.329$ and $P = 0.005$)
11	Women heads of households under the auspices of the welfare organization in 22 centers of Tehran	Keyes social health questionnaire and researcher-made social support questionnaire	The relationship between social support and social health	There was a significant relationship between age, education, three dimensions of emotional support, instrumental support, information support of social support, and total social support of women heads of households with their social health. ($P < 0.001$)
12	The women aged 18–55 in district 4 of Tehran	Keyes social health questionnaire	The relationship between feeling of social security, openness, religious affiliation and marital status with social health	The social health score was 72.66 ± 7.81 . All 4 variables had a significant relationship with social health. Religious affiliation with 0.59 is the most effective variable on women's social health in the sampled population

TABLE 3: Continued.

Row	Population subgroups	Measuring tools	Outcome	Results (mean score or r)
13	Men and women aged 18–29 in Tehran	Keyes social health questionnaire	The relationship between social health and gender clichés	<p>There was a significant relationship between marital status, women's age and women's social health</p> <p>The discriminant correlation shows the net effect of the relationship between gender clichés and social health. By controlling and eliminating the effect of trust, the correlation between gender clichés and social health in all dimensions has decreased relatively compared to the initial correlation, which indicated the strong effect of trust on social health. 43% of changes in social health are explained by trust and personal and social gender clichés</p>
14	Women 16 years old and older in Kerman city	Researcher-made social participation questionnaire	The effect of individual and social characteristics on social participation	<p>The rate of total social participation, which is obtained from the sum of formal and informal social participation, was about 83.6% of the respondents at the middle and lower level and 16.5% at the high level. The mean of total social participation was 2.2 out of 4. The level of total and informal social participation had a significant relationship with the level of hope for the future, universalism, rationalism, and activism ($P < 0.001$)</p> <p>The education of the individual had a significant relationship with the level of social participation ($r = 0.48$ and $P = 0.011$), there was a significant relationship between social participation and women's awareness. ($P < 0.001$)</p>
15	Women 15 to 24 years old in Isfahan city	Keyes social health questionnaire & researcher-made social support questionnaire	Social health and the related factors	<p>There was a significant and direct relationship between social support and social health. ($r = 0.638$ and $P < 0.001$)</p>
16	Rural women 16 years old and older	Interview with the a questionnaire containing open and closed questions	Determinants of social participation of rural women	<p>Social participation of rural women was in middle level and there was a relationship between the social participation and variables relevant to women's attitude, age, job, education, media and level of information</p>

TABLE 3: Continued.

Row	Population subgroups	Measuring tools	Outcome	Results (mean score or <i>r</i>)
17	Women of Kerman	Social participation Factor's women and the world health organization quality of life (WHOQOL)—BREF questionnaire	Correlation between social participation of women and their quality of life	Quality of life was appropriate in 44%, moderate in 54% and inappropriate in 1.7% of women. Social participation was appropriate in 18%, moderate in 81% and inappropriate in 3% of women. There was a direct and significant correlation between quality of life and social participation ($r = 0.21, P < 0.001$)
18	Working women and housewives in Yazd	Keyes social health questionnaire, Rosenberg's self-esteem scale & researcher-made decision-making power questionnaire	Comparing social health, decision-making, communication skills and self-esteem between working women and housewives	Employed women had higher communication skills, self-esteem and decision-making power than homemakers, ($P < 0.001$). Variables such as education and income had a relationship with social health of employed women. The mean of social health in employed women (115 ± 14.7) compared homemaker women (103 ± 11.1) was higher and significant. ($P < 0.001$)
19	Female-headed households	Simon and Gaher's distress tolerance scale, self-Compassion scale—Short form (SCS—SF), and Keyes social health questionnaire	Self-Compassion Distress tolerance Social health	The average social health: 18.41 ± 2.29 There were significant correlations between all domains of self—Compassion and distress tolerance with social health (P value < 0.01)
20	Women	Keyes social health questionnaire Life skills questionnaire	Social health Life skills	The correlation between life skills variable and social health variable with low intensity was 0.245 at a significant level of < 0.001
21	Women	A researcher-made questionnaire	Social health Electoral behavior	The average social health: 3.18 There were significant correlations between social health and electoral behavior ($r = 0.34, P$ value < 0.001)
22	Women head of households	Social wellbeing Questionnaire—Short form & family social support questionnaire, & social trust questionnaire	Relation between social health with social support and social trust	The path coefficient between social trust and social health ($\beta = 0.324, P = 0.001$), and the coefficient of the direct path between social support and social health ($\beta = 0.460, P = 0.001$) were positive and significant. Additionally, the total path coefficient between social support and social health was positive and significant ($\beta = 0.574, P = 0.001$). Finally, the indirect path coefficient between social support and social health with the mediating role of social trust was positive and significant ($\beta = 0.114, P = 0.012$)

A descriptive quality assessment of the selected studies was appraised by using “quality assessment tool for observational cohort and cross-sectional studies” developed by National Heart, Lung and Blood Institute; this tool consisted of 14 questions about different aspects of the study; each question is marked by Yes / No / others. The overall score was determined by the assessment of two reviewers and categorized as good, fair, and poor [17]. Research question, study population, response rate, eligibility criteria, sample size justification, outcome measures, statistical analyses, and the quality assessment has been accomplished independently by two reviewers BT and ZR, and probable discrepancy between them was resolved based on the third expert opinion, MN. Only fair and good quality studies were included in the final review. The scoring of each assessed study is added to supplement 1

2.1.4. Statistical Analysis. Meta-analysis was conducted on means and SD (standard deviation) of the mean score of social health, assessed by Keyes social health questionnaire [2], as it was the most commonly used tool in the studies. Meta-analysis method was pooling the generic effect sizes using the random effects model if for heterogeneity $I^2 > 50\%$ and $P < 0.05$. For this aim, SDs were converted to standard error (SE). Subgroup analysis was conducted for women who were head of household, employed, and unemployed women. Forest plot and funnel plot were used to show pooled effect and possibility of publication bias, respectively. All data were analyzed using STATA software version 17.0 (Stata Corp. LLC, TX, US).

3. Results

3.1. Study Selection. The search yielded 776 records based on our search strategy, and 10 studies were found by manual searching. After removing duplicates and titles/abstracts screening, 114 studies remained. The full texts of 29 articles were not available. So, 85 articles were assessed for eligibility criteria, the 20 publications were excluded because of the following reasons: the results were not reported separately in women, the main outcome was not social health or its components, were systematic review, and not being in English or Persian language. Then, 65 articles were critically appraised and 43 of them were excluded because of poor quality. Finally, 22 articles entered for data extraction (Figure 1).

3.2. Description of Studies. A total of 6569 women participated in included studies. From 22 included studies, one source was in English and 21 were in Persian. Social health was the main outcome in 18 articles. The 4 remaining articles did not report social health as their main outcome specifically; instead they studied the domains of social health such as social participation [32, 33, 39] and social wellbeing [21].

All of the 22 included articles were designed as survey or cross-sectional study. The population of the included studies was women older than 16 years old, older adults, and female-headed households. Regarding the residential place, only

two studies were conducted among the rural population [26, 32], while others were among the urban women.

It is noticeable that the female-head households' social health as a vulnerable group of women was investigated in 8 studies; in two studies the social health was compared with other women [20, 26] which was significantly lower and in six others, there was only one group and the affecting factors were assessed [22–24, 28, 35, 38]. Social support was another common factor assessed in five studies [7, 24, 26, 28, 38].

The relationship between social health and different related factors was investigated in included studies. Age [26, 28, 30], marital status [25, 29, 30], education [26, 28, 34], women's employment [18, 25], income [34], religion and religious beliefs [20, 22, 33, 43–45], life and communication skills [20, 26, 34, 42, 46], social trust [38], social security [19, 23, 25, 29], gender clichés [30], attitude toward domestic violence [27], voting behavior [37], and social media [32] were the factors that affected women's social health which have been addressed in included studies. Extracted data from included studies is presented in Tables 2 and 3.

3.3. Meta-Analysis. Five studies were included in the meta-analysis [20, 25, 29, 34, 36]; other 17 studies neither used a unified measuring tool nor reported mean score of social health. The range of score using this tool is between 72.6 and 115. The highest score means the better social health.

Accordingly, the pooled analysis of all subgroups showed that the mean of the social health mean score was 98.54 (CI: 87.56–109.51, random effects). Considering subgroups, the pooled result of the general population was 92.90 (CI: 74.61–111.19, random effects), and the lowest pooled effects was for head of the household women which was 81.80 (CI: 78.86–84.74, random effects); full details are shown in Figure 2. The funnel plot showed a rather symmetric distribution of the study effects, but they consisted of a wide-spread range (Figure 3).

4. Discussion

In this review, the women's social health and its dimensions as well as the related factors were investigated. According to the reported social health mean score, most of the studies reported a moderate social health level in their populations. Various populations in different parts of Iran were investigated; main factors affecting women's social health were being head of household, age, marital status, education level, employment, living in a city or village, level of income, religious beliefs, communication skills, social trust, social security, social participation, domestic violence, voting behavior, social media, and media literacy. Also, social health score was the lowest among women who were heads of household.

According to this study, social health score was lowest among women who were heads of household. Social participation was significantly lower among female-headed households compared to nonheaded ones [20, 26]. Being employed or having a job improves the social health of

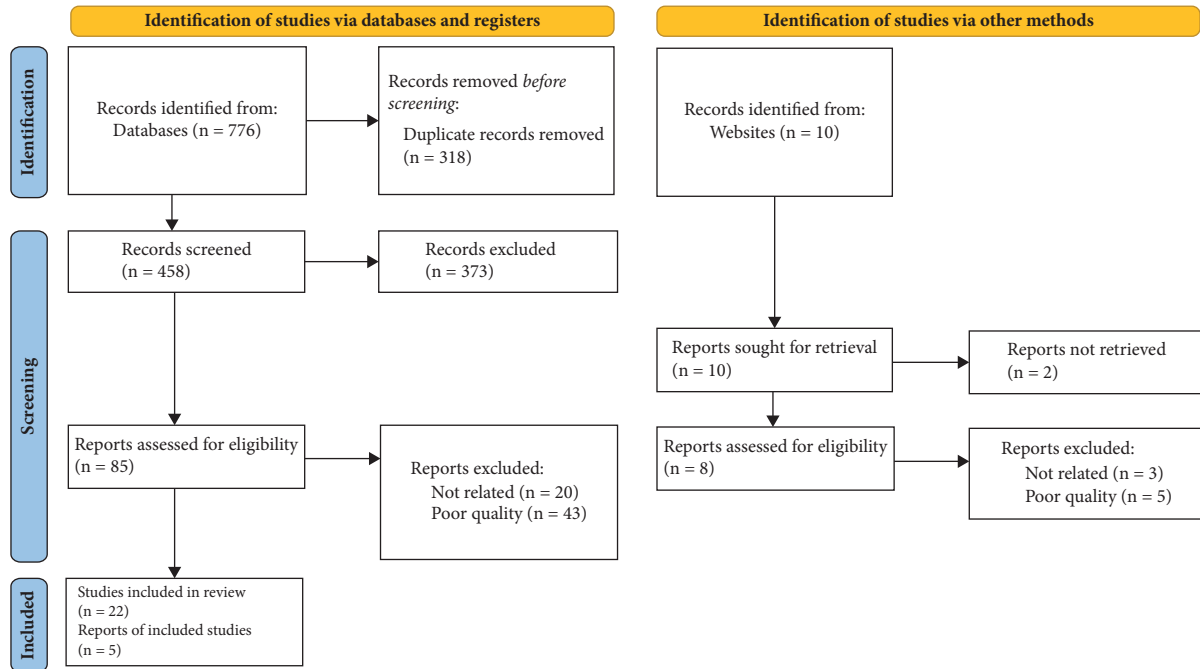


FIGURE 1: PRISMA flowchart for the results of the literature review according to the inclusion criteria.

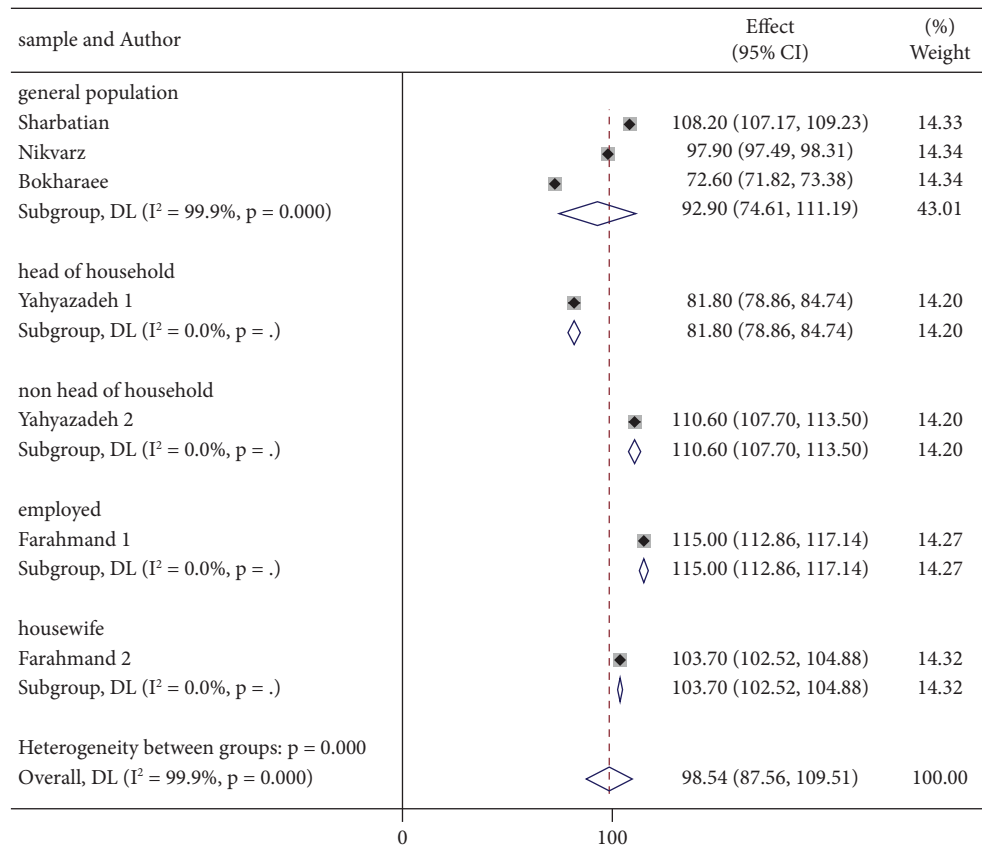


FIGURE 2: Social health mean score of included studies in meta-analysis.

women. Based on the findings of the studies examining the employment, social health in working women was significantly higher than in housewives and unemployed ones. This

could happen due to the fulfillment of basic needs such as financial independence, social relations, social support, and less mental pressure in case of income among employed

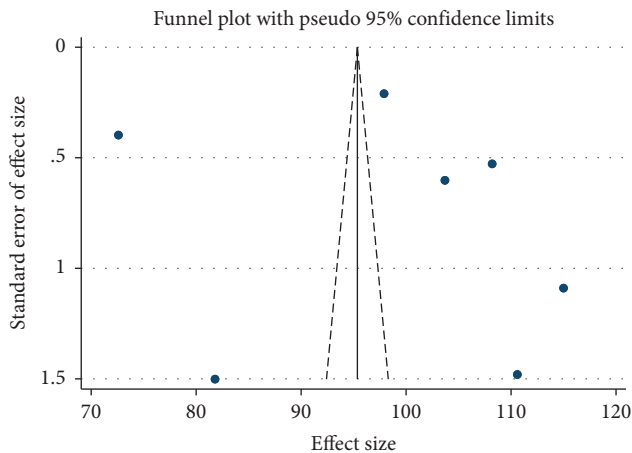


FIGURE 3: Funnel plot of included studies in meta-analysis.

people [47]. This relation is specifically highlighted in a study by Ghazinejad et al., which assessed the relationship between social health and employment status, demonstrating that the desirability of working conditions (wages, benefits, job security, organizational support, etc.) had a great influence on women's social health [48]. Age is another influential factor that has been negative significant relationship with social health or sometimes no relationship is seen [26, 28, 32]. It seems this factor is not as important as the other non-modifiable factors as a determinant of social health of women.

We also found that married women experience a higher level of social health than singles [25]. It seems the married women get some important supports from their husbands that has an important effect on the social domain of women's health. It can be economical or psychosocial support maybe. Education is another key determinant of social health. Despite having direct effects on neurological and biological development, it could contribute to social health by improving social and communication skills, self-esteem, social contribution, and participation [50]. The current review showed the significant positive relationship between education level and women's social health as well as social participation [28, 31, 32, 34, 51, 52]. Even parents' education level is influential on the students' social health [53]. Besides, in some studies, educational interventions such as social or communication skills have increased the social health of women [28, 48, 54]. Thus, women's education should be addressed in order to have better social health. The explanation could be the association between education and health literacy and better participation in social activities.

Religious believes as another factor has controversial relation with social health. Some studies did not find any relationship [20, 23] and others found the positive correlation [22, 29]. It seems the effect of the religious believes on social health is very complex and is dependent on the activities related to religious and opportunity of doing these in the community.

Women's social participation could be considered as an indicator of progress and an opportunity to accelerate the development process; it could be defined by the individual

sociality and social activities involvement [55]. It was demonstrated that women's social participation is significantly related to their awareness, education, and quality of life [32, 33, 56]. Gender roles and stereotypes are considered to be a threat to women's social participation; these include negative attitudes toward women's work outside their homes, being active in society, and the conflict between outside and housework [57]. Additionally, communication skills, voting behavior and social media showed a positive significant relation with the social health or its dimensions [20, 26, 32, 37].

Social support is another contributing factor affecting social health; a significant relationship has been reported between social support and women's social health [7, 23, 24, 26, 28, 45, 52]. The role of social support is more crucial in women who are the head of households [23, 24]; because of their extra duty towards the economic and educational conditions of their children alongside their routine responsibilities [58]. Moreover, social support is investigated in two special groups in current research. One study focused on rural women and another one was conducted on women who have husbands with chronic psychiatric problems in Tehran. These two groups seem to need more robust social support and special attention for their further responsibilities and economic pressure [26, 52].

Finally, in order to meaningful life and participate in society and achieve high levels of development, each individual needs security [59]. On the other hand, social health is an important factor in achieving social security, by reducing threats, social problems, and maintenance of social order [60].

4.1. Strengths and Limitations. The strengths of this systematic review include assessing both English and Persian studies and focusing on all aspects of social health and the factors affecting it among Iranian women in various population groups. The limitations of this study were the dispersion of social health domains and the tools for measuring them. Without access to the initial data of each, it is not possible to report a single average for women's social health in Iran. This is due to the fact that many studies used Keyes Social Health Questionnaire, in its long and short forms, and also in some studies, researchers have revalidated this questionnaire in the target population and changed the number of questions.

4.2. Implications. This study calculates the overall social health score among Iranian women; also, the detailed findings could be used to determine the at-risk groups more holistically, and by considering the mentioned factors that affect the social health of women, policy makers could focus more on improving these conditions.

5. Conclusion

In summary, women's social health is a pillar for having healthy individuals, families, and societies. Social support, social trust, social security, social capital, religious beliefs, education, employment status, communication skills, and

socioeconomic level are among the factors influencing social health and its dimensions in women in Iran based on this review. Further policies and legislation in addition to capacity building for women and their families are needed to facilitate the meaningful presence of women in society and secure their social health as well. For instance, new technologies and teaching skills could be very beneficial, especially for women who live in remote rural areas or who cannot attend routine classes. It is recommended that social support would be provided in different ways; for example, working in environments with higher social support can reduce work-family conflicts and therefore lead to improved social health. Promoting social support, empowering, and life-skill training in this vulnerable group requires more sensitization of policy-makers, planners, and other areas related to establishing the rights of women who are the heads of households. Life skills education such as self-compassion and distress tolerance, and communication skills at schools and also workplaces is seriously recommended. As well, contribution to recreational activities should be considered as an effective intervention that would be noticed more by the authority.

Data Availability

All data generated or analyzed during the current study are available from the corresponding author on reasonable request.

Ethical Approval

The study was approved by the Iranian Academy of Medical Sciences.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

M.N, B.T, and Z.R had equal contribution in designing the paper. M.H.S and S.A had contribution in writing search syntax and searching in databases for eligible studies. E.Z and M.R extracted the data; B.T and Z.R rechecked the extracted data. Meta-analysis was conducted by YA. B.T, Z.R, N.S, and A.A had cooperation in drafting of the manuscript and M.N supervised the project, conducted critical revision, and approved the manuscript. All authors reviewed and have given approval to the final version of manuscript.

Acknowledgments

This research was supported by the Iranian Academy of Medical Sciences under Grant number D/FAP/1/9605.

Supplementary Materials

Quality assessment of studies. (*Supplementary Materials*)

References

- [1] World Health Organization, "Preamble to the constitution of the world health organization as adopted by the international health conference," *Official Records of the World Health Organization*, vol. 2, p. 100, 1946.
- [2] C. L. M. Keyes, D. Shmotkin, and C. D. Ryff, "Optimizing well-being: the empirical encounter of two traditions," *Journal of Personality and Social Psychology*, vol. 82, no. 6, pp. 1007–1022, 2002.
- [3] C. L. M. Keyes, "Social well-being," *Social Psychology Quarterly*, vol. 61, no. 2, pp. 121–140, 1998.
- [4] M. A. Zareipour, N. Narmayoun, and M. Ghelichi Ghoghjogh, "Investigating social health and its related factors among male prisoners of urmia in 2016," *Social Behavior Research & Health*, vol. 1, pp. 126–133, 2017.
- [5] A. Blanco and D. Díaz, "Social order and mental health: a social wellbeing approach," *Psychology in Spain*, vol. 11, 2007.
- [6] M. Firouzbakht, M. E. Riahi, and A. Tirgar, "A Study of the Effective Factors on the Women's Social Health: A Review Study in Persian Scientific Journals," *Community Health*, vol. 4, 2017.
- [7] E. Najaf Abadi Azam, "Factors influencing the social health rate of 15 to 24year old fe-males in isfahan (focusing on social support rate)," *Journal of Health Psychology*, vol. 1, pp. 99–113, 2011.
- [8] M. Afifi, "Gender differences in mental health," *Singapore Medical Journal*, vol. 48, no. 5, pp. 385–391, 2007.
- [9] R. K. McHugh, V. R. Votaw, D. E. Sugarman, and S. F. Greenfield, "Sex and gender differences in substance use disorders," *Clinical Psychology Review*, vol. 66, pp. 12–23, 2018.
- [10] C. A. Mustard and J. Etches, "Gender differences in socioeconomic inequality in mortality," *Journal of Epidemiology & Community Health*, vol. 57, no. 12, pp. 974–980, 2003.
- [11] P. D'Incau, C. Barbui, J. Tubini, and A. Conforti, "Stressful life events and social health factors in women using anxiolytics and antidepressants: an Italian observational study in community pharmacies," *Gender Medicine*, vol. 8, no. 2, pp. 80–92, 2011.
- [12] M. Nikogoftar, "Gender differences in social health: the role of individualism-collectivism," *Social Welfare Quarterly*, vol. 14, pp. 111–129, 2014.
- [13] M. Denton, S. Prus, and V. Walters, "Gender differences in health: a Canadian study of the psychosocial, structural and behavioural determinants of health," *Social Science & Medicine*, vol. 58, no. 12, pp. 2585–2600, 2004.
- [14] S. M. Abedi, A. Baghaei sarabi, M. Musai, and B. Ghadimi, "A sociological study of the relationship between social support, social confidence, and economic and social base of people with women's social health in khesht province fars," *Social Research*, vol. 12, no. 49, pp. 87–116, 2021.
- [15] World Economic Forum, "Global Gender gap Report 2021," Report, World Economic Forum, Cologny, Switzerland, 2021.
- [16] M. J. Page, J. E. McKenzie, P. M. Bossuyt et al., "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," *International Journal of Surgery*, vol. 88, Article ID 105906, 2021.
- [17] National Institutes of health, "Study quality assessment tools," 2021, <https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools>.

- [18] E. Masti and S. Fakhrai, "The study of the relationship between women's employment and their social health in maragheh," *Sociology Study*, vol. 7, no. 24, pp. 117–133, 2014.
- [19] K. Rastegar, F. Haghighat, H. Zare, and K. Hasanzadeh, "Examination of the relation between social security and social-wellbeing with supervision among women living in shiraz," *Sociology of Women (Journal of Woman and Society)*, vol. 6, no. 3, pp. 79–104, 2015.
- [20] H. Yahyazadeh and M. Ramezani, "The study of the social health rate and the social factors effective on it: a case study of women heading households in Qurveh," *Soc Develop Welfare Plan*, vol. 16, pp. 65–101, 2013.
- [21] P. Farokhnezhad Afshar, M. Foroughan, A. A. Vedadhi, and M. Ghazi Tabatabaei, "Relationship between social function and social well-being in older adults," *Iranian Rehabilitation Journal*, vol. 15, no. 2, pp. 135–140, 2017.
- [22] A. shokrollahi nezhad, *The effect of religious beliefs on the social health of women heads of households under the auspices of Imam Khomeini Relief Committee of the province*, Islamic Azad University of Central Tehran-Faculty of Social Sciences, Tabriz, Iran, 2016.
- [23] R. Mohammadi Asl, "Surveying the level of social health and related factors (Case study: female headed households covered by the welfare organization of Khoy city)," M.Sc. thesis, Tabriz University, Tabriz, Iran, 2016.
- [24] E. Hemmati, M. S. Mahdavi, and A. Baghaeisarabi, "Effects of social support in social health of female-headed households," *Social Research*, vol. 6, pp. 45–61, 2013.
- [25] T. Nikvarz, "A sociological study regarding the effect of the sense of security on social wellbeing among women aged between 15 to 45 in kerman city," *Quarterly Journal of Women and Society*, vol. 9, no. 33, pp. 81–106, 2018.
- [26] S. Shahbazi, A. Mirakzadeh, and A. Alibaygi, "Survey of social health and its challenges from the perspective of rural women (case study: ghalaeshahin district in the province of Kermanshah)," *Rural Development Strategies*, vol. 4, 2017.
- [27] E. Kamali Dehghan, "The relationship between the level of social health of married men and women in Karaj city and their attitude towards domestic violence," M.Sc. thesis, Allameh Tabatabai University, Tabriz, Iran, 2012.
- [28] S. A. Hossaini Haji Bakandeh and M. Taghipour, "A survey on the social support on the social health of women," *Journal for Social Research*, vol. 3, pp. 139–158, 2010.
- [29] A. Bokharaee, M. H. Sharbatiyan, and N. Imani, "A sociological study of women's social health and the effective factors (case study: women in district 4 of tehran)," *Two Quarterly Journal of Contemporary Sociological Research*, vol. 4, pp. 29–54, 2015.
- [30] K. Safiri and F. Mansoirian Ravandi, "Gender Clichés and social health: a study on men and women from Tehran," *Women's Studies Sociological and Psychological*, vol. 13, pp. 37–66, 2015.
- [31] L. Yazdanpanah and F. Samadian, "The effect of individual and social characteristics on the social participation of Kermani women," *Sociological & Psychological*, vol. 6, pp. 127–149, 2008a.
- [32] M. Ahmadvand and M. Sharifzadeh, "Determinants of social participation of rural Women Case of boyer-ahmad county," *Women's Studies Sociological and Psychological*, vol. 9, pp. 139–166, 2011.
- [33] S. Alizadeh, M. Mohseni, N. Khanjani, and V. Momenabadi, "Correlation between social participation of women and their quality of life in Kerman," *Journal of Healthcare Protection Management*, vol. 3, pp. 34–42, 2014.
- [34] M. Farahmand, K. Khatami Sarvi, and R. Mohammadhasani, "Comparing social health, decision-making, communication skills and self-esteem between working women and housewives in Yazd," *Quarterly Journal of Women and Society*, vol. 7, pp. 147–166, 2016.
- [35] S. Azizmohammadi, N. Rakebi, S. Kamran Koochesfehiani, and H. Asadi, "Role of self-compassion and distress tolerance in the social health of female household heads," *Middle East J Disabil Stud*, vol. 9, p. 56, 2019.
- [36] M. H. Sharbatian, M. Rezazadeh, and S. Alizadeh Khaneghahi, "Relationship between social health and life skills (Case Study: women of 20-45 year old in Ferdows city)," *Sociology and Lifestyle Management*, vol. 6, no. 15, pp. 163–217, 2020.
- [37] E. Amirifar, M. Chitsaz, and A. Mohammadi, "Investigating the relationship between social health and electoral behavior of women in Ahvaz," *Political Sociology of Iran*, vol. 3, no. 2, pp. 582–604, 2020.
- [38] G. Atefi Hanzani, A. Shekarbeygi, and O. Ahmadi, "Developing a social health model based on social support and social trust in female-headed households," *MEJDS*, vol. 11, no. 0, p. 34, 2021.
- [39] L. Yazdanpanah and F. Samadian, "The impact of demographic and social women's social participation Kirmani. Womens Studies," *Sociological & Psychological*, vol. 6, pp. 127–149, 2008b.
- [40] H. S. Miri, K. Zolghadr, and A. Qasemi, "A comparison of the effect of social support on the social health of female-headed and non-headed households in mashhad," *Journal of Psychologicalscience*, vol. 18, no. 84, pp. 2295–2302, 2020.
- [41] H. Sadat Miri, K. Zolghadr, and A. Qasemi, "Meta-analysis of social health of women heads of households and non-heads of households and the effect of social support on their health: case study in Mashhad," *The Journal of Social Psychology*, vol. 9, no. 61, pp. 43–58, 2021.
- [42] H. Yahyazadeh and Z. Arabgari, "The relationship between teaching the social skills and social health of high school girl students in the 19th region of tehran hossein," *Social Work Research*, vol. 1, pp. 130–166, 2015.
- [43] S. Abedi and M. Musai, "Investigating economic and social factors affecting women's social health with emphasis on religion," *Islamic Economics & Banking*, vol. 9, pp. 219–243, 2020.
- [44] S. A. Afshani and H. C. N.-A. Shiri Mohammadabad, "The relationship between religiosity and social health among women in the city of yazd," *Payavard Salamati*, vol. 11, pp. 66–74, 2017.
- [45] R. Mohseni, S. Moeinfar, A. Moeinfar, and R. Saei, "Social factors affecting women's social health in uremia: case study on married women 25-45 years," *Journal of Health Literacy*, vol. 3, pp. 30–38, 2018.
- [46] M. H. Sharbatiyan and N. Imani, "A sociological analysis of social health of youth and factors affecting it (case study: 18-to 30-year-old citizens of qaen city)," *Journal of Applied Sociology*, vol. 29, pp. 167–188, 2018.
- [47] J. Ahn, N.-S. Kim, B.-K. Lee, J. Park, and Y. Kim, "Comparison of the physical and mental health problems of unemployed with employees in South Korea," *Archives of Environmental & Occupational Health*, vol. 76, no. 3, pp. 163–172, 2021.
- [48] M. Ghazinejad and H. Sangari Soleymani, "The relationship between jobs and social health of women," *Women in Development & Politics*, vol. 14, no. 3, pp. 273–288, 2016.
- [49] L. Vijayasingham, V. Govender, S. Witter, and M. Remme, "Employment based health financing does not support gender

- equity in universal health coverage," *British Medical Journal*, vol. 371, p. m3384, 2020.
- [50] A. K. Cohen and S. L. Syme, "Education: a missed opportunity for public health intervention," *American Journal of Public Health*, vol. 103, no. 6, pp. 997–1001, 2013.
- [51] S. M. Haery, H. Tehrani, A. Olyaeimanesh, and S. Nedjat, "Factors influencing the social health of employees of the ministry of health and medical education in Iran," *Iranian Journal of Health Education and Health Promotion*, vol. 3, pp. 311–318, 2016.
- [52] S. Saleh and M. Zahedi Asl, "Correlation of social support with social health of psychiatry veterans wives," *Iranian Journal of War and Public Health*, vol. 6, no. 5, pp. 201–206, 2014.
- [53] F. Kadkhodae and S. Lotfi, "Measuring the amount of social health of high school students of Shiraz and assessing its influencing factor," *Social Research*, vol. 6, pp. 183–207, 2013.
- [54] N. Mozaffari, B. Dadkhah, M. Shamshiri, M. A. Mohammadi, and N. Dehghan Nayeri, "The status of social well-being in Iranian nurses: a cross-sectional study," *Journal of Caring Sciences*, vol. 3, no. 4, pp. 239–246, 2014.
- [55] B. Piškur, R. Daniëls, M. J. Jongmans et al., "Participation and social participation: are they distinct concepts?" *Clinical Rehabilitation*, vol. 28, no. 3, pp. 211–220, 2013.
- [56] G. Ghaffary, F. Nikbin Sedagati, and K. Esmaeilzadeh, "Women's social participation and its effect on family welfare (case study: district 9, Tehran)," *Woman & Study of Family*, vol. 5, pp. 33–62, 2013.
- [57] A. Salehi, D. Whitehead, B. Sebar, R. upadhyay, E. Coyne, and N. Harris, "Young women living in Iran: gendered drivers influencing social participation and wellbeing," *Journal of Gender Studies*, vol. 30, no. 4, pp. 478–495, 2021.
- [58] S. M. Toohey, M. Shinn, and B. C. Weitzman, "Social networks and homelessness among women heads of household," *American Journal of Community Psychology*, vol. 33, no. 1–2, pp. 7–20, 2004.
- [59] M. Chalabi and M. Amirkafi, "Multiple-level analysis of social isolation," *Iranian Journal of Sociology*, vol. 5, no. 2, pp. 3–31, 2004.
- [60] E. Samaram, "Community-oriented policing and social health," *Journal of Social Order*, vol. 1, pp. 9–29, 2009.