Abstract
The purpose of the current study was to present a model for explaining mental health of university students based on the variables of goal orientation, hope, and spiritual well-being. The current study was a descriptive-correlation research. Research samples were 374 people (150 women and 224 men) with the age range of 18 to 50 years old (mean of 24.67 and standard deviation of 6.72). They were selected from among students of Islamic Azad University, Hamedan Branch, using multistage sampling method and filled out the questionnaires related to goal orientation, hope, spiritual well-being, and mental health. Data were analyzed by SPSS-16 and LISREL 8.5 software programs. The results showed a significant correlation between goal orientation and hope, goal orientation and spiritual well-being, hope and spiritual well-being, hope and mental health, and also spiritual well-being and mental health. Result of path analysis showed that the designed model for explaining mental health fitted the data (AGFI=0.98, RMSE=0.00, NFI=0.98). In the fitted model, goal orientation directly affected hope and well-being, hope directly affected spiritual well-being and indirectly influenced mental health, and finally well-being directly affected mental health. Purpose-driven students have a higher level of hope and students with a higher level of hope enjoy a higher degree of spiritual well-being and consequently better mental health. According to the presented model, a learning package can be prepared for improving students' mental health.

Keywords: Hope, Spiritual, Well-being, Mental Health, Student
ability to react to different life experiences in a flexible and meaningful manner [3]. Students constitute a large portion of active population in a country. Considering the nature of being a student and necessity of adaptation with rapid changes which occur during this period of life for many people, it seems that various factors put their mental health at risk. These factors may include some personality variables or environmental stresses such as academic failure, emotional failure, financial problems, etc. or a combination of both.

Among the psychological factors which can prevent and reduce mental disorders and improve mental health in students is spiritual well-being [4]. Spiritual well-being can be defined as establishing communication with others, having a purpose-driven and meaningful life, and believing in and connecting with a transcendental power [5]. Reinforcing religious beliefs at all life stages is a preventive measure for decreasing mental disorders [4]. Numerous studies have supported this hypothesis that spiritual well-being can reinforce mental function and coping [6, 7, 8, 9]. Furthermore, results of a number of studies have shown significant correlations between scores of spiritual well-being and variables including religious practices [10], depression, self-esteem, and internal religious orientation [11]. Unterrainer et al. [12] demonstrated that spiritual well-being had a significantly positive relationship with psychological well-being and subscales of extroversion and openness to new experiences from Big Five personality traits and had a significantly negative relationship with neuroticism. Also, results of the study by Yonker et al. [13] demonstrated that spiritual well-being had positive effects on psychological outcomes including risky behaviors, depression, and self-esteem along with personality characteristics such as agreeableness and openness among adolescents and the youths.

Among other variables related to the mental health of university students is hope. Snyder et al. [14] considered hope as "a cognitive-motivational set based on the feeling of success resulted from agency (goal-directed energy) and pathway (planning for goal achievement)". Therefore, hope is composed of two inter-related components: thought pathway and thought agency. "Thought pathway" reflects one's capacity in generating new ways for goal achievement and "thought agency" refers to the thoughts about a person's capabilities and capacities for passing through the selected ways to achieve their goals. By combining agency and pathway, one can achieve their goals. In case each of these two cognitive elements is absent, goal achievement would be impossible [15]. Studies have shown a relationship between the high level of hope and success in sport activities, academic achievement, physical and psychological health, and efficacy of psychotherapy used in the treatment of psychological disorders [16, 17]. On the other hand, it seems that hope is closely related to well-being and can affect it. In a longitudinal study which focused on elementary and high school students, Valle et al. [18] confirmed the moderating role of hope as a moderating variable in relation to stressful life events and well-being of adolescents. In sum, the results indicated the efficacy of hope variable in promoting mental health especially in the youths and university students.

In a study by Wener [19], hope and needs were able to predict 40% of variance of subjective well-being and the role of hope was greater in this regard. Also, results of this article showed that a higher level of hope could improve the recovery process of patients with serious mental illnesses.

Since constitutive elements of hope (i.e. agency and pathway) indicate the process of purpose-driven thoughts, goal orientation can be thus assumed as the antecedent of hope. Our knowledge about goal orientation roots in studies by Dweck et al. [20, 21] Goal oriented means thinking about the future, making plans, and working to achieve certain things no matter what. People that are goal oriented are always working to achieve their goals. Therefore, they considered two main classes for the variable of goal orientation or the amount of effort one makes to achieve their desired goals: 1- learning goal orientation, and 2- performance
goal orientation. People with performance goal orientation consider challenging tasks as a threat, because there is a high failure risk in these tasks and failure means their insufficient capability. Hence, in challenging situations, these people adopt a maladaptive response pattern, have negative attitude about their ability, and show little enthusiasm in the tasks. People with learning goal orientation find challenging tasks as an opportunity for improvement and growth. In such circumstances, these people follow an adaptive response pattern, adopt problem-oriented solutions, and enjoy doing tasks. Accordingly, it seems that learning goal orientation has a close and significant relationship with hopeful thinking and, as a predictor variable, has a large share in explaining the variance of hope.

Regarding the relationship between goal orientation and hope, Peterson et al. [22] showed that learning goal orientation was directly related to hope such that learning goal orientation could predict hope.

Generally, literature review indicates the direct effect of spiritual well-being and hope on mental health [23]. Considering the aforementioned discussion, hope also directly affects well-being and goal orientation is one of the predictors of hope. Since prevention is always better than cure and entails less cost for people and consequently the society, preparing and training some models for promoting mental health are significantly important in today's world. Hence, considering the mentioned research background, the current article aimed to present the following conceptual model for explaining mental health of university students. Also, attempts were made to understand whether the presented conceptual model fitted the collected data using different instruments given to students or not?

![Figure 1](image)

**Figure 1** Conceptual model of structural relationships between goal orientation, hope, spiritual well-being, and mental health

**Method**

This was a correlation-descriptive study. Statistical population of the current study included the entire B.Sc. students of Islamic Azad University, Hamedan Branch, in 2011-2012 academic year with the approximate number of 14000. Using Cochrane equation, 374 students (150 male and 224 female) with the age range of 18-50 years old (mean and standard deviation of 24.67 and 6.72, respectively) were selected using multistage sampling method. After visiting every faculty (humanities, basic sciences, and engineering) and obtaining information about the number of students, sampling was performed in proportion to the number of students per faculty. When the number of samples from each school was specified, some classes were randomly selected from among different classes of that school. Then, after arranging with the related officials and asking for the permission of professors and consent of participants, the questionnaires were distributed to the selected classes. They were briefed on how to fill out the questionnaires and were assured of the confidentiality of information. Data were analyzed using Pearson correlation coefficient and path analysis in SPSS-16 and LISREL-8.5 software programs.
Structural modeling pattern of mental health of students

General health questionnaire: Twenty eight-item general health questionnaire (GHQ-28) is one of the most widely used instruments for determining general health status of people within four domains of physical symptoms, anxiety and sleep disorder, social function, and depression. This questionnaire consists of 28 questions, with 7 questions for every subscale. Each question is scored in a 4-point Likert scale (0, 1, 2, 3). Accordingly, minimum and maximum scores are 0 and 84, respectively. Results of the study by Noorbala et al. for investigating concurrent validity of this questionnaire showed a significant correlation between all the subscales of SCL-90 and GHQ scales (P<0.001). Also, test-retest reliability coefficient for this questionnaire was r=0.85 [24]. The Adult Trait Hope Scale (ATHS): This scale which consists of 12 questions and two subscales of agency and pathway was developed by Snyder et al. (1991). Questions 1, 4, 6, and 8 evaluate pathway subscale and questions 2, 9, 10, 12 measure agency subscale; the rest are polygraphs. Snyder et al. revealed this questionnaire had a high level of internal consistency [25]. In another study performed in Iran by Karaminia et al. [25], Cronbach's alpha for this instrument was reported as 0.83 and results of conformity factor analysis indicated that this questionnaire was a single-factor instrument for the internal sample [26]. Well-being scale: This scale which contains 20 questions and 2 subscales was developed by Palotzain and Ellison (1982). Odd numbers of the test are related to spiritual well-being subscale and assess a person's experience in relation to establishing a satisfactory connection with God. Even numbered questions are related to existential well-being subscale, which measure the sense of goal-driven and life satisfaction. Response scale is based on 6-point Likert scale, starting from "totally agree" [6] to "totally disagree" [1]. In the study by Palotzain and Ellison [27], the test-retest coefficient of spiritual and existential well-being and the whole scale were reported as 0.96, 0.86, and 0.93 and their Cronbach's alpha were also reported as 0.91, 0.90, and 0.93, respectively. In the study conducted in Iran by Dehshiri et al., test-retest reliability coefficient and internal consistency of this questionnaire were reported as 0.85 and 0.90, respectively [28]. Goal orientation questionnaire: This questionnaire which consists of 16 questions was designed by Button, Mathieu, and Zajac [29]. It was first translated to Persian and standardized by Gholami (2003) (cited by 30). Reliability coefficient of Cronbach's alpha was obtained as 0.78 in the Iranian sample. Reliability coefficient of the above-mentioned questionnaire was 0.78 in the present work. Its response scale is based on 5-point Likert scale, including "totally agree", "agree", "no opinion", "disagree", and "totally disagree", in which the scores of "totally disagree" and "totally agree" were 1 and 5, respectively. In this questionnaire, questions 1 to 8 measure performance goal orientation and questions 9 to 16 assess learning goal orientation.

Results
As shown in Table 1, maximum and minimum

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean±SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mental health</td>
<td>44.65±11.68</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Spiritual well-being</td>
<td>26.06±9.13</td>
<td>-0.33</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Hope</td>
<td>28.67±4.23</td>
<td>-0.20</td>
<td>0.45**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. Goal orientation</td>
<td>14.47±91.13</td>
<td>-0.07</td>
<td>0.38**</td>
<td>0.41**</td>
<td>-</td>
</tr>
</tbody>
</table>

**P<0.01
degrees of correlation with mental health belonged to spiritual well-being (r=0.33, P<0.01) and goal orientation (r=0.07, P>0.05), respectively. Also, there was a significant correlation between hope and spiritual well-being (r=0.45, P<0.01), goal orientation and hope (r=0.41, P<0.01), and also goal orientation and spiritual well-being (r=0.38, P<0.01). Results of Kolmogorov-Smirnov test for investigating normality indicated that none of the variables deviated from the normal distribution. Goodness of fit indices of the model showed that the conceptual model fitted the data. The ratio of Chi-square to degree of freedom in the good-fit models is less than 2, and it is better to be closer to zero. In the present article, this value was less than 2. In good models, root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) are less than 0.05; these indices were well-estimated in the present article (Table 2). As shown in the Table 2, all normal fit index (NFI), comparative fit index (CFI), and adjusted goodness of fit index (AGFI) were above 0.9.

Table 2 Goodness of fit indices for the model

<table>
<thead>
<tr>
<th>indices</th>
<th>Df</th>
<th>X²</th>
<th>RMSEA</th>
<th>P- value</th>
<th>NFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>IFI</th>
<th>GFI</th>
<th>AGFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>2</td>
<td>1.16</td>
<td>0.000</td>
<td>0.55</td>
<td>0.98</td>
<td>1.03</td>
<td>1.00</td>
<td>1.01</td>
<td>0.00</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Figure 2 Path analysis of relations between goal orientation, hope, spiritual well-being, and mental health

As shown in the above diagram, there was a slight difference between the fitted model and the conceptual model. In the fitted model, hope was not directly related to mental health, but indirectly affected mental health via spiritual well-being. Investigating pathway standard coefficients and their related quantities demonstrated that goal orientation was directly related to hope \(t=4.98, B=0.39\) and spiritual well-being \(t=2.44, B=0.20\). Furthermore, as can be seen in the above model, hope directly affected spiritual well-being \(t=4.33, B=0.36\) and spiritual well-being directly affected mental health \(t=3.47, B=0.29\). Moreover, goal orientation and mental health indirectly affected mental health via spiritual well-being \(t=3.47, B=0.29\). It should be noted that all the path coefficients were significant at least at \(p<0.01\).

Discussion

This study aimed to propose a pathway model for predicting mental health of university students based on goal orientation, hope, and spiritual well-being. Results of Pearson correlation coefficient demonstrated that among all the predictor variables, spiritual well-being had maximum level of significant relationship with mental health. To accurately determine the share of each predictor variables in mental health, path analysis model was used. Goodness of fit indices showed that the model generally fitted the data and the theoretical model was approximately compatible with real data after a slight change. In other words, the hypotheses based on the results of previous studies [12,13,16,17,22,23] and presented as
a theoretical model were generally consistent with the data obtained from the sample and the presented model was confirmed. Investigating the exogenous variables of the model demonstrated that among these variables, spiritual well-being had maximum path coefficient with students' mental health. This finding is consistent with the findings of Nilsson [31], Wentis [32], Koeing [33], Kim [34], and Bahrami et al. [34]. This finding can be explained in that spirituality and religiosity are like a shield against problems and concerns of people and act as a shock absorber. Spirituality decreases psychological disorders and promotes mental health and thus plays an important role in people's well-being and mental health. Spirituality promotes mental health by preparing a framework for describing and interpreting life experiences and subsequently providing a sense of existential consolidation and connection. The aforementioned findings suggested that spiritual well-being influenced different aspects of mental and physical health and besides creating a meaningful experience and sense of purpose in life, it was fundamentally accompanied by life acceptance, sense of responsibility, experience of social interaction with others, goal orientation, hope, and optimism [36]. Koenig [37] mentioned two important reasons for the major role of religion in psychological well-being: first, providing a framework for understanding "whys" and second, promising eternal life and ever-lasting ideal position. In sum, by reviewing previous studies during recent decades, it can be understood that spirituality is effective in promoting people's mental and physical health and decreasing its related disorders. Spiritual well-being promotes people's mental and physical health and increases their coping with life events by increasing self-awareness, making connection with others, receiving social support from others, increasing sense of confidence, meaning, and goal in life, and effectively confronting and coping with mental and physical problems along with other mental-health-related components.

Another finding of the current study was that hope was also indirectly related to mental health via spiritual well-being. In their work, Hasson-Ohayon showed that hope training can result in reinforcement of religious beliefs among women with breast cancer and such strong religious beliefs can also increase the capability of people for encountering cancer [38]. Snyder and Feldman [39] believe that in recent years, psychologists have considered hope construct as a psychological point and assumed this construct can help to grow and create mental health. Hopeful adults have a distinct psychological profile [40]. Adults who are highly hopeful experience the same amount of life failure as others; however, they have developed this belief that they are capable of adapting themselves with challenges and coping with adversities. They adopt a constant positive internal conversation within themselves which includes sentences like "I can do it, I will not surrender" and the like. When they face obstacles in achieving their valuable goals, they experience low negative emotions and thus enjoy greater mental health. This issue might be due to the fact that, when they face obstacles, they either choose alternative paths for achieving their goal or select more accessible goals with flexibility. Research findings have demonstrated that people with a higher level of hope show a higher level of self-esteem, better academic performance, and higher commitment in performing tasks related to improved health. Adults enjoying from a higher level of hope consider others as a supportive source and basis for reliance [41]. Furthermore, these people believe that they are able to adapt themselves with the challenges they might encounter in their lives, experience a higher level of happiness, and have a higher level of satisfaction with their lives [42]. They are also able to grow this internal conversation that "I can finish this job, I should not fail and get disappointed". They consider their successes rather than their failure [41]. Furthermore, in line with the study by Valle et al. [18], as determined in the fitted model, hope had a direct effect on spiritual well-being.

Another finding of the current article was the effect of goal orientation on hope. To confirm this result, it can be pointed out that, since
the constitutive elements of hope (pathway and agency) indicate purpose-driven thoughts, therefore, goal orientation can be assumed as the antecedent of hope. On the other hand, purpose-driven thought has a close relationship with the meaningfulness of life so that Feldman and Snyder [20] believed hopeful thinking as the main outcome of meaningful life. So, considering the presence of significant relationship between hope and goal orientation, it can be said that these two variables together could play a major role in explaining spiritual well-being. On the other hand, in a study by Peterson et al. [22], it was shown that learning goal orientation was directly related to hope so that it could predict hope. In another study, Ahmadi et al. concluded that goal orientation was one of the antecedents of hope and directly affected it. Regarding the relationship between goal orientation and well-being, Tuominen-Soini et al. [44] represented that orientation related to personal development and growth was positively related to different aspects of well-being.

One of the limitations of correlation studies, which also existed in the current study, is the lack of casual perception from the relations between variables. Therefore, there might be other factors affecting students' mental health which were not included in the current model. Hence, it is recommended for researchers to present other models for explaining students' mental health. Another limitation of the current study was that it was performed specifically on university students; thus, the results could not be generalized to other groups. Therefore, it is recommended to run a similar study on the mental health of other groups of people. Also, a learning package can be prepared based on the current model with an emphasis on variables of hope and goal orientation, because students' health can be promoted by training goal orientation and consequently hope to them.

**Conclusion**

Results of the current study showed that the proposed conceptual model related to students' mental health fitted the obtained data after a slight change. In the extracted model, goal orientation directly affected hope and well-being. Also, hope directly affected spiritual well-being and indirectly influenced students' mental well-being via this variable.

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**Contributions**

Study design: MATS, MRZ
Data collection and analysis: HZ, TM
Manuscript preparation: MATS

**Conflict of Interest**

"The authors declare that they have no competing interests."

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