

**Supplementary Table 1.** Basic characteristics of the studies included in the systematic review.

First Author/ year	Location	Study characteristics				Control group	Tool Characteristics			Key results	JBI Score
		1. Design	2. Sample Size (I/C)	M/F ratio	Age (mean±SD)		1. Name of the questionnaire	2. Number of items	3. Overall scoring of items		
<b>Hasanpour et al., 2011 [18]</b>	Iran	1. Quasi experimental 2. 80 (40/40) 3. Nursing ethics workshop 4. 8 weeks 5. 8 weeks 6. 0	8.75/9 1.25	36	Participants in the control group did not participate in the workshop	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 30 items 3. 30 to 210	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>Independent sample t-test</li> <li>ANOVA</li> <li>Chi-square</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention in the intervention group compared to the control group (P=0.0001).	Good		
<b>Borhani et al., 2012 [17]</b>	Iran	1. Quasi experimental 2. 50 (25/25) 3. Nursing ethics workshop 4. 9 weeks 5. 2 days 6. 8 weeks	38.00/ 62.00	38.06 (SD=5.33)	Participants in the control group did not participate in the workshop	1. Moral Sensitivity Questionnaire by Han 2. 25 items 3. 0 to 100	<ul style="list-style-type: none"> <li>Mann-Whitney U</li> <li>Friedman</li> <li>Chi-square</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention and follow-up in the intervention group compared to the control group (P<0.001).	Good		
<b>Imanifard et al., 2015 [19]</b>	Iran	1. RCT (crossover) 2. 56 (56/0) 3. Nursing ethics workshop using narration and lecture 4. 16 weeks 5. 4 weeks 6. 12 weeks	12.5/8 7.50	35.25 (SD=6.05)	-	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 30 items 3. 30 to 210	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>Independent sample t-test</li> <li>ANOVA</li> </ul>	The mean score of moral sensitivity in nurses was increased in the narration and lecture groups after the intervention and follow-up compared to before the intervention and follow-up (P<0.001).	Good		
<b>Bahrieni et al., 2017 [2]</b>	Iran	1. RCT 2. 68 (34/34) 3. Moral sensitivity workshop 4. 1 week 5. 1 day	17.65/ 82.35	33.04 (SD=5.28)	Participants in the control group did not participate in the workshop	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 25 items 3. 0 to 100	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>Chi-square</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention in the intervention group compared	Good		

First Author/ year	Location	Study characteristics				Control group	Tool Characteristics			Key results	JBI Score
		1. Design	2. Sample Size (I/C)	M/F ratio	Age (mean±SD)		1. Name of the questionnaire	2. Number of items	3. Overall scoring of items		
		3. Intervention									
		4. Duration of study									
		5. Duration of intervention									
		6. Duration of follow-up									
		6.0								to the control group (P<0.001).	
<b>Hosseini et al., 2018 [8]</b>	Iran	1. Quasi-experimental 2. 40 (20/20) 3. Ethical motivational educational program 4. 5 weeks 5. 2 days 6. 4 weeks	42.50/ 57.50	35.12 (SD=6.42)	Participants in the control group did not participate in the workshop	1. Moral Sensitivity Questionnaire by Han 2. 25 items 3. 0 to 100	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>Independent sample t-test</li> <li>ANOVA</li> <li>Chi-square</li> <li>Mann-Whitney U</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention and follow-up in the intervention group compared to the control group (P<0.001).	Good		
<b>Nasirian et al., 2020 [10]</b>	Iran	1. Quasi-experimental 2. 60 (30/30) 3. Virtual narrative ethics workshop 4. 13 weeks 5. 5 weeks 6. 8 weeks	30.00/ 70.00	32.63 (SD=5.13)	Participants in the control group did not participate in the workshop	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 25 items 3. 0 to 100	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>ANOVA</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention and follow-up in the intervention group compared to the control group (P=0.001).	Good		
<b>Bagherzadeh et al., 2021 [11]</b>	Iran	1. Quasi-experimental 2. 131 (64/67) 3. Empowerment educational program 4. 7 weeks 5. 3 weeks 6. 4 weeks	23.66/ 76.34	33.07 (SD=5.67)	Participants in the control group did not participate in the workshop	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 30 items 3. 30 to 210	<ul style="list-style-type: none"> <li>Mann-Whitney U</li> <li>Independent sample t-test</li> <li>ANOVA</li> <li>Chi-square</li> </ul>	The mean score of moral sensitivity in nurses was increased after the intervention and follow-up in the intervention group compared to the control group (P<0.001).	Good		
<b>Lee et al., 2021 [12]</b>	South Korea	1. Quasi-experimental 2. 35 (17/18) 3. Nursing ethics workshop using seminar 4. 24 weeks 5. 24 weeks 6. 0	0/100	N/A	Participants in the control group did not participate in the workshop	1. Moral sensitivity in decision-making Questionnaire by Lutzen 2. 9 items 3. 9 to 54	<ul style="list-style-type: none"> <li>Paired sample t-test</li> <li>Fisher's exact</li> <li>Chi-square</li> <li>Mann-Whitney U</li> </ul>	There was no significant difference between the intervention and control groups in terms of the effect of the nursing ethics workshop using seminars on moral sensitivity in nurses (P>0.05).	Good		

**RCT:** Randomized Control Trial; **SD:** Standard Deviation.