Nurse's Attitude Towards Palliative Care and Associated Factors in Ethiopia: a Systematic Review and Meta-analysis

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Abstract

Background: Palliative care significantly improves the distressing symptoms of patients, especially those with cancer, heart disease, renal disease, and liver disease, and its need is increasing worldwide due to the growing burden of chronic disease. Nurses with an unfavorable attitude towards palliative care cannot skilfully assess the patient's needs, effective communication, and adequately address the patient's problems. Thus, this study was amid to assess the nurse's level of attitude towards palliative care in Ethiopia.

Method: PubMed/MEDLINE, HINARI, EMBASE, Scopus, Google Scholar, and African Journals Online (AJOL) were the databases used to search for articles. Cochrane I2 statistics and Eggers test was done to check heterogeneity and publication bias, respectively. Subgroup analysis and sensitivity analysis were also done to detect the source of heterogeneity and an influential study, respectively.

Result: The pooled prevalence of nurse's attitudes towards palliative care was 67.15% (95% CI: 54.75-79.54. Palliative care training was a significantly associated factor with the level of nurse's attitude towards palliative care. Accordingly, nurses who have taken palliative care training (AOR=2.53; 95% CI; 1.88-3.40) was found a significantly associated factor with the level of nurse's attitude towards palliative care.

Conclusion: More than half of the nurses had a favorable attitude towards palliative care. Palliative care training was a significantly associated factor with the nurse's level of attitude towards palliative care. Thus, palliative care training and improving nurse's careers through continuous professional development should be given regularly for nurses to improve their knowledge about palliative care.

Introduction

Comprehensive and humanistic care are the main tasks of nurses that focus on the patient's body, soul, and environment. One of the types of nursing comprehensive and humanistic care is palliative care (1). Palliative care is an approach to pain management of patients facing a severe illness that enhances the patient's quality of life. It includes any form of medical and nursing care which is planned to decrease the intensity of symptoms (2). Palliative care significantly improves the distressing symptoms of patients, especially those with cancer, heart disease, renal disease, and liver disease (3). The need for palliative care is increased in the globe due to the growing burden of chronic diseases and aging populations (4). The incidence, prevalence, and death due to chronic illness are increasing worldwide with long-term disabilities and comorbidities. The estimated annual deaths of patients with chronic diseases in England are projected to rise by 25.4 % (from 501,242 deaths in 2014 to 628,659 in 2040) (5). The need for effective palliative care service may become more significant in low-income countries including Ethiopia (6). In low-income countries, lack of resources, ignorance regarding palliative care, the reluctance of nurses to give palliative care, and restrictive nurses who are responsible to provide palliative care were the most common barriers to access palliative care (7). The nurse acts as a link between different levels of care, between professionals and patients and families which contribute to the quality of care to the individual patient (8). They play an important role in providing quality palliative care. The attitude of nurses towards palliative care can affect the quality of palliative care (9). Nurses with an increased capacity of giving palliative care can decrease the suffering of patients and reduce costs for hospitalized adults with serious and complex disease (10). However, nurses with an unfavorable attitude towards palliative care cannot skilfully assess the patient's needs, effective communication, and adequately address the patient's problems (11). Previous studies showed that nurses attitudes towards palliative care were; 69.1% (12), 56.6% (13), 44.25% (14), and 53.41% (15). Experience of nurses, level of education, palliative care training, knowledge on palliative care, and in-service education are possible factors that may affect the attitude of nurses towards palliative care (16–18). In Ethiopia, the issue of palliative care, the nurse's attitude towards palliative care was not well discussed previously. Therefore, it is necessary to evaluate the attitude of nurses towards palliative care in Ethiopian nurses. Thus, this study is designed to evaluate a nurse's attitude towards palliative care in Ethiopia.

Methods And Materials

Study protocol

This systematic review and meta-analysis was conducted to evaluate the attitude of nurses towards palliative care and its associated factors in Ethiopia using the Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA) checklist for reporting of findings (Table S1) (19).

Databases and searching strategies

In this systematic review and meta-analysis, the following searching databases were used; Google Scholar, Web of Science, African Journals Online (AJOL), HINARI, PubMed/MEDLINE, and EMBASE. We also searched the unpublished articles from the repositories of Ethiopian universities. The articles were searched from January 1st up to October 01, 2020. All articles that report the attitude of nurses towards palliative care and its associated factors in Ethiopia were included in the final analysis. The searching engine terms used were "attitude", "feeling", "perception", "palliative care", "end of life care", "EOL", "caring terminally ill", "factors", "associated factors", "determinant factors", "nurses", "hospital-based nurses" and "Ethiopia". "AND" and "OR" Boolean operators strings were used. The date range for included study was from 2014–2020 (Table 1).

Table 1
Search of databases about the attitude of nurses towards palliative care and its associated factors in Ethiopia.

Databases	Searching terms	Number of studies
MEDLINE/ PubMed	"Attitude" OR "feeling" OR "perception" AND "palliative care" OR "PC" OR "EOL" OR "end of life care" OR "caring terminally ill" AND "factors" OR "associated factors" OR "determinant factors" AND "nurses" OR "hospital-based nurses" AND "Ethiopia"	89
Google Scholar	"Attitude" AND "palliative care" OR "end of life care" OR "caring terminally ill" AND "associated factors" OR "determinant factors" AND "nurses" OR "hospital-based nurses"	189
Other databases		11
Total retrieved articles		289
Included studies		9

Screening and eligibility of the study

The retrieved articles were exported to EndNote Reference software version 8 (Thomson Reuters, Stamford, CT, USA) citation manager to sort and avoid possible duplications. Three investigators (AG, AD, and AW) independently evaluated each study by title and abstracts using predetermined inclusion criteria. The first name of the authors, publication year, a region where the study was conducted, sample size, study period, the attitude of nurses, and factors affecting nurse's attitudes towards palliative care were extracted. Any discrepancies between the authors during the process of extraction, evaluation, and reviewing of the articles were resolved.

Inclusion and exclusion criteria

All cross-sectional studies reporting the attitude of nurses towards palliative care and its associated factors in Ethiopia were included. Whereas articles that did not report outcome variables, qualitative studies, interventional studies, trials, case reports, news, and studies without full text were excluded from the analysis.

Outcome measurement of the study

The outcomes of this study are the attitude of nurses and the associated factors that affect the attitude of nurses towards palliative care. The attitude of nurses was measured by the mean score of Frommelt Attitudes Toward Care of the Dying (FATCOD) scale. Then, the outcomes were leveled as a favorable attitude for those nurses who were scored mean and above of FATCOD scale, whereas nurses who were scored below the mean of the FATCOD scale were considered under unfavorable attitude.

Quality Assessment

Three authors; AG, AD, and AW independently evaluated the quality of each study using the Newcastle Ottawa Scale (NOS) for cross-sectional studies (20). The methodological quality, comparability, outcomes, and statistical analysis of the studies were the assessment tools used to declare the quality of the studies. Studies scored a scale of ≥ 7 was considered as achieving high quality. The disagreement between the authors was resolved by other reviewers (MB and GG). Then all authors independently assessed the articles for consideration and inclusion in the final analysis.

Data processing and analysis

The pooled prevalence of nurse's attitudes towards palliative care and its associated factors in Ethiopia were weighted using the inverse variance random-effects model at 95%CI (21). The Microsoft Excel spreadsheet was used to extract and clean the data. Then, the data were exported to STATA version 11 statistical software for analysis. The heterogeneity of the studies was assessed using Cochrane Q-test and I² with its corresponding p-value (22). Subgroup analysis by a region where the study was conducted, the study period, and the sample size was done to examine the source of heterogeneity. The presence or absence of influential studies was checked by conducting sensitivity analysis. Egger's test was also done to detect the presence of publication bias and was presented with a funnel plot (23). Regarding the associated factors, a log odds ratio was used to decide the association between associated factors and the nurse's attitude towards palliative care. In this study, a statistical test with a P-value of < 0.05 was considered statistically significant.

Result

All retrieved articles were 289. Of these articles, 96 were excluded due to duplication. One hundred fifty-one articles were further excluded after reviewing the titles and abstracts of the studies. Furthermore, 33 articles were excluded that did not fulfill the inclusion criteria. Finally, nine articles were included in the final analysis (Fig. 1).

Characteristics of the studies and study participants

Nine articles with a total study population of 2709 (1137 males and 1572 females) were included in this review. The studies were; three from the Amhara region (14, 15, 24), two from Addis Ababa city administration (25, 26), two from the Tigri region (27, 28), one from the Oromia region (29), and one from Harar

region (30). All studies were cross-sectional in design and the sample size of the included studies was ranged from 197–392 (Table 2).

Table 2 Study characteristics included in the review and meta-analysis on the attitude of nurses towards palliative care and its associated factors in Ethiopia.															
Region	Sample size	Level of education		Work experience			Experience in caring chronically ill patients					Palliative care training		Knowledge (%)	N
		Diploma	BSc	< 5 year	10–15 Year	> 10 year	Daily	Once/weak	Once/month	Few/year	Never	Yes	No		
Tigri	278	120	158	120	75	83	115	62	22	25	54	-	-	25.18	7
Tigri	355	169	186	136	105	114	165	79	17	40	54	267	88	62.82	7
Addis Ababa	341	170	171	182	70	89	186	70	27	33	25	74	267	30.50	8
Amhara	226	93	133	145	65	16	80	27	39	36	44	59	167	59.73	7
Amhara	331	45	286	230	77	24	153	78	48	4	48	62	269	38.97	8
Amhara	352	148	204	183	99	70	-	-	-	-	-	-	-	53.13	8
Harar	197	-	-	-	-	-	-	-	-	-	-	58	139	55.84	7
Oromia	237	106	131	151	60	26	-	-	-	-	-	-	-	58.23	8
Addis Ababa	392	57	335	251	97	44	271	56	18	37	10	112	280	26.53	7
BSc: Bachelor of Science, NOS: Newcastle - Ottawa quality assessment Scale															

Attitude of nurses towards palliative care

The pooled prevalence of the attitude of nurses towards care in Ethiopia was 67.15% (95% CI: 54.75–79.54) (Fig. 2).

Heterogeneity and publication bias

Heterogeneity was detected within the studies included in the analysis ($I^2 = 98.5\%$, $p < 0.001$). There is an asymmetrical distribution of studies in the funnel plot and the Egger's test was statistically significant ($p = 0.001$), suggesting the presence of publication bias (Fig. 3).

Subgroup analysis

To detect the source of heterogeneity, subgroup analysis by region, study period, and sample size was done. The pooled prevalence of nurse's attitudes towards palliative care was higher among nurses working in Southern Ethiopia, 71.29% (95% CI: 54.37–88.22). Regarding the study period, the level of nurse's attitude towards palliative care was higher among studies conducted after 2017, 74.45% (95% CI: 61.20–87.70). Similarly, the higher prevalence of nurse's attitude towards palliative care was reported among those studies with a sample size of ≥ 300 , 68.25% (95% CI: 56.37–80.12) (Table 3).

Table 3 Subgroup analysis on the level of nurse's attitude towards palliative care and its associated factors in Ethiopia						
Variables	Subgroup	Studies (n)	Population	Prevalence (95%CI)	I^2 (%)	P-value
Region	Northern Ethiopia	5	1542	63.80 (43.68–83.92)	98.9	< 0.001
	Southern Ethiopia	4	1167	71.29 (54.37–88.22)	98.0	< 0.001
Study period	≥ 2017	5	1427	61.23 (39.08–83.38)	99.1	< 0.001
	< 2017	4	1282	74.45 (61.20–87.70)	97.1	< 0.001
Sample size	< 300	4	938	65.70 (38.76–92.64)	99.2	< 0.001
	≥ 300	5	1771	68.25 (56.37–80.12)	97.0	< 0.001
Northern Ethiopia: Tigri region and Amhara region						
Southern Ethiopia: Addis Ababa city administration, Oromia region, and Harar region						

Sensitivity analysis

None of the points estimated outside of the overall 95% confidence interval indicates that there is no influential study (Table 4).

Table 4
Sensitivity analysis of nurse's attitudes towards palliative care and its associated factors in Ethiopia.

Study omitted	Publication year	Estimate prevalence	(95%CI)
Zeru T et al.	2020	63.78	52.15–75.42
Zeru T et al.	2020	68.49	55.37–81.62
Kassa H et al.	2014	66.02	51.91–80.13
Getie A et al.	2020	69.98	57.63–82.34
Abate AT et al.	2019	66.69	52.77–80.61
Anteneh S et al.	2016	68.86	55.99–81.74
Meaza D and Wrku Z	2015	65.06	51.31–78.81
Tesfaye T et al	2018	70.46	58.54–82.37
Gedamu S et al.	2017	64.94	50.70–79.19
Overall		67.15	54.75–79.54
CI: Confidence Interval			

Factors associated with the level of the nurse's attitude towards palliative care

In this systematic review and meta-analysis, there is a significant association between palliative care training and nurse's level of attitude towards palliative care. Then, the odds of a nurse's attitude towards palliative care were 2.53 times more likely among nurses who had taken palliative care training than those nurses who did not take palliative care training (AOR = 2.53; 95% CI; 1.88–3.40) (Fig. 4).

Discussion

Nurses are central in providing palliative care with a holistic nursing approach of physical, psychological, emotional, social, and spiritual aspects. The current review assessed the attitude of nurses towards palliative care in Ethiopia. Accordingly, more than half, 67.15% (95% CI: 54.75–79.54), of nurses had a positive attitude towards palliative care. However, more than 30% of participants had unfavorable attitudes, which might be due to; the lack of motivation due to low salary, lack of experience, role confusion, and low level of knowledge. Similar findings were reported in different countries; 56.6% in Sudan (13), 69.1% in Mongolia (12), 62.4% in Palestine (31), and 58.9 in Democratic Republic of Congo (32). The finding of this study was lower than studies conducted in Iran (81.8%) (33) and India (92.8%) (34). This difference might be because of the cultural differences related to giving care to the dying patients, the difference in case flow, in which previous studies were conducted in high-income countries, which helps the nurse to have more exposure to patients who need palliative care, and this builds their attitude towards palliative care. It might be also due to the absence of curriculum education content about palliative care in Ethiopia. However, the current study was higher than a study done in Egypt, 37.6% of nurses had a positive attitude towards palliative care (35). This deficiency might be due to the difference regarding in-service training, knowledge about palliative care, formal palliative care education, and job satisfaction of nurses. In the subgroup analysis, the pooled prevalence of nurse's attitudes towards palliative care was higher among nurses working in Southern Ethiopia than Northern Ethiopia. This might be due to the difference in the study setting, in which most of the study settings in Southern Ethiopia are referral and specialized where most patients who need palliative care are found. Similarly, the level of nurse's attitude towards palliative care was higher among studies conducted after 2017. This is due to the fact that nurses are building knowledge and attitude through time because they have taken training and continuous education. The higher prevalence of nurse's attitudes towards palliative care was also reported among those studies with a sample size of ≥ 300 . This study results, there is a significant association between palliative care training and nurse's level of attitude towards palliative care. Accordingly, the odds of nurse's attitudes towards palliative care were 2.53 times more likely among nurses who had taken palliative care training than those nurses who did not take palliative care training. The reason might be because trained nurses will have good knowledge, which results in a positive attitude. This result is supported by different studies (2, 36, and 37)

Conclusion

More than half of the nurses had a positive attitude towards palliative care. In this regard, palliative care training was a significantly associated factor with the nurse's level of attitude towards palliative care. Thus, there should be the incorporation of palliative care in the nursing curriculum and palliative care training should be given regularly for nurses to improve their attitude towards palliative care.

Abbreviations

AJO: African Journals Online, AOR: Adjusted Odds Ratio, BSc: Bachelor of Science CI: Confidence Interval NOS, Newcastle Ottawa Scale, FATCOD: Frommelt Attitudes Toward Care of the Dying, and PRISMA: Preferred Reporting Items for Systematic Review and Meta-analysis.

Declarations

Availability of data and materials

All related data have been presented within the manuscript. The dataset supporting the conclusions of this article is available from the authors on request.

Author's Contributions

AG, AD, and AW designed the study, designed and run the literature search. All authors (AG, AW, MB, GG, and AD) acquired data, screened records, extracted data, and assessed the risk of bias. AG and AD did statistical analyses and wrote the report. All authors provided critical conceptual input, analyzed and interpreted the data, and critically revised the report. All authors read and approved the final manuscript.

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable.

Competing interest

The authors declared that they have no competing interests.

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References

1. Borimnezhad L, Seyedfatemi N, Mardani Hamooleh M. Concept Analysis of Palliative Care Using Rodgers' Evolutionary Method. *Iran Journal of Nursing*. 2014;26(86):1-15.
2. Parveen A, Sultana K, Waqas A, Tasneem S, Jabeen R, Faiz A. Knowledge and Attitude of Nurses About Palliative Care. *Journal of Bioresource Management*. 2020;7(1):8.
3. Lopez-Acevedo M, Havrilesky LJ, Broadwater G, Kamal AH, Abernethy AP, Berchuck A, et al. Timing of end-of-life care discussion with performance on end-of-life quality indicators in ovarian cancer. *Gynecologic oncology*. 2013;130(1):156-61.
4. Sleeman KE, de Brito M, Etkind S, Nkhoma K, Guo P, Higginson IJ, et al. The escalating global burden of serious health-related suffering: projections to 2060 by world regions, age groups, and health conditions. *The Lancet Global Health*. 2019;7(7):e883-e92.
5. Etkind S, Bone A, Gomes B, Lovell N, Evans C, Higginson I, et al. How many people will need palliative care in 2040? Past trends, future projections and implications for services. *BMC medicine*. 2017;15(1):1-10.
6. Challinor JM, Galassi AL, Al-Ruzzieh MA, Bigirimana JB, Buswell L, So WK, et al. Nursing's potential to address the growing cancer burden in low-and middle-income countries. *Journal of global oncology*. 2016;2(3):154.
7. Hawley P. Barriers to access to palliative care. *Palliative Care: Research and Treatment*. 2017;10:1178224216688887.
8. Sekse RJT, Hunsbr I, Ellingsen S. The nurse's role in palliative care: A qualitative meta-synthesis. *Journal of clinical nursing*. 2018;27(1-2):e21-e38.
9. Harden K, Price D, Duffy E, Galunas L, Rodgers C. Palliative Care: Improving nursing knowledge, attitudes, and behaviors. *Clinical Journal of Oncology Nursing*. 2017;21(5).
10. May P, Normand C, Cassel JB, Del Fabbro E, Fine RL, Menz R, et al. Economics of palliative care for hospitalized adults with serious illness: a meta-analysis. *JAMA internal medicine*. 2018;178(6):820-9.
11. Iranmanesh S, Razban F, Tirgari B, Zahra G. Nurses' knowledge about palliative care in Southeast Iran. *Palliative & supportive care*. 2014;12(3):203-10.
12. Kim JS, Kim J, Gelegjamts D. Knowledge, attitude and self-efficacy towards palliative care among nurses in Mongolia: A cross-sectional descriptive study. *Plos one*. 2020;15(7):e0236390.
13. Bilal M. The knowledge of palliative care and the attitude toward it among the nurses at Sabia General Hospital 2018. *Sudan Journal of Medical Sciences*. 2018;13(4):301-10.
14. Addisu Getie AW, Ayelign Mengesha, Awet Fitwi, Getnet Gedefaw, Asmamaw Demis Nurses knowledge, attitude, practice and associated factors towards palliative care in government health hospitals of north Wollo. 2020.
15. Anteneh S, Kassa H, Demeke T, Guadu T. Assessment of Nurses' Knowledge, Attitude, Practice and Associated Factors Towards Palliative Care: In the Case of Amhara Region Hospitals. *Advances in Biological Research*. 2016;10(2):110-23.
16. Kim S, Hwang WJ. Palliative care for those with heart failure: nurses' knowledge, attitude, and preparedness to practice. *European Journal of Cardiovascular Nursing*. 2014;13(2):124-33.
17. Fauziningtyas R, Widowati ER, Indarwati R, Asmoro CP. Determinants of Knowledge and Attitude related to Palliative Care Nurses. *International Journal of Psychosocial Rehabilitation*. 2020;24(7).
18. Paknejadi F, Hasavari F, Khaleghdoost Mohammadi T, Kazemnejad Leili E. Nurses' knowledge of palliative care and its related factors. *Journal of Holistic Nursing and Midwifery*. 2019;29(4):236-42.

19. Moher D, Liberati A, Tetzlaff J, Altman DG, Group P. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS med.* 2009;6(7):e1000097.
20. Peterson J, Welch V, Losos M, Tugwell P. The Newcastle-Ottawa scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses. Ottawa: Ottawa Hospital Research Institute. 2011.
21. Borenstein M, Hedges LV, Higgins JP, Rothstein HR. A basic introduction to fixed-effect and random-effects models for meta-analysis. *Research synthesis methods.* 2010;1(2):97-111.
22. Rücker G, Schwarzer G, Carpenter JR, Schumacher M. Undue reliance on I² in assessing heterogeneity may mislead. *BMC medical research methodology.* 2008;8(1):79.
23. Egger M, Smith GD, Schneider M, Minder C. Bias in meta-analysis detected by a simple, graphical test. *Bmj.* 1997;315(7109):629-34.
24. Abate AT, Amdie FZ, Bayu NH, Gebeyehu D. Knowledge, attitude and associated factors towards end of life care among nurses' working in Amhara Referral Hospitals, Northwest Ethiopia: a cross-sectional study. *BMC research notes.* 2019;12(1):521.
25. Kassa H, Murugan R, Zewdu F, Hailu M, Woldeyohannes D. Assessment of knowledge, attitude and practice and associated factors towards palliative care among nurses working in selected hospitals, Addis Ababa, Ethiopia. *BMC palliative care.* 2014;13(1):6.
26. Gedamu S. Knowledge and attitude of nurses towards palliative care in government health hospitals of addis ababa, ethiopia, 2016: Addis Ababa University; 2016.
27. Zeru T, Berihsu H, Gerensea H, Teklay G, Teklu T, Gebrehiwot H. Assessment of knowledge and attitude towards palliative care and associated factors among nurses working in selected Tigray hospitals, northern Ethiopia: a cross-sectional study. *The Pan African Medical Journal.* 2020;35(121).
28. Zeru T, Gerensea H, Berihsu H, Zeru M, Wubayehu T. Nurses practice towards palliative care in Shire Endasilasie health facilities, Northern Ethiopia: a cross-sectional study. *The Pan African Medical Journal.* 2020;35(110).
29. Tesfaye T, Anbessie Y, Gizaw AB. Palliative Care Practice and Associated Factors among Nurses Working in Jimma University Medical Center South-West Ethiopia, 2017. *practice.* 2018;18:24.
30. Meaza D, Worku Z. Knowledge, Attitude and Practice of nurses towards palliative care in Harari National Regional State, Eastern Ethiopia. *European Journal of Public Health.* 2015;25(3):476-9.
31. Ayed A, Sayej S, Harazneh L, Fashafsheh I, Eqtait F. The Nurses' Knowledge and Attitudes towards the Palliative Care. *Journal of Education and Practice.* 2015;6(4):91-9.
32. Mukemo AK, Kasongo NM, Nzaji MK, Tshamba HM, Mukengeshayi AN, Nikulu JI, et al. Assessment of Nurses' Knowledge, Attitude and Associated Factors towards Palliative Care in Lubumbashi's Hospitals.
33. Abdollahimohammad A, Firouzkouhi M, Amrollahimishvan F, Alimohammadi N. Nurses versus physicians' knowledge, attitude, and performance on care for the family members of dying patients. *Korean journal of medical education.* 2016;28(1):79.
34. Karkada S, Nayak BS. Awareness of palliative care among diploma nursing students. *Indian journal of palliative care.* 2011;17(1):20.
35. Ali WGM, Ayoub NS. Nurses' attitudes toward caring for dying patient in Mansoura university hospitals. *Journal of Medicine and Biomedical Sciences.* 2010;1(1):16-23.
36. Wi DH, Kang SJ. Relationship among nurses' knowledge, attitude towards palliative care and perception of death in neonatal intensive care units. *Child Health Nursing Research.* 2016;22(4):257-64.
37. Sorifa B, Mosphea K. Knowledge and practice of staff nurses on palliative care. *IJHRMLP.* 2015;1(2):41-5.

Figures

Figure 1

Flow chart of selection for systematic review and meta-analysis on the attitude of nurses towards palliative care and its associated factors in Ethiopia.

Figure 2

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Forest plot of the pooled prevalence of nurse’s attitude towards palliative care and associated factors in Ethiopia.

Figure 3

Funnel plot with 95% confidence limits of the pooled prevalence of nurse’s attitude towards palliative care and associated factors in Ethiopia.

Figure 4

The overall pooled odds ratio of the association between palliative care training and nurse’s level of attitude towards palliative care in Ethiopia.

Supplementary Files

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