

likely to be satisfied with the care provided as compared to parents who had more than two weeks duration of hospital stay [AOR=4.75(1.84-12.265)].

Table 3: Bivariate and multiple regression analysis about parental satisfaction in the Tikur Anbessa specialized hospital, June 2015 (n=224).

Factors	Parental Satisfaction		95% confidence interval	
	Satisfied N (%)	Unsatisfied N (%)	COR	AOR
Ward				
Surgical	20(47.6)	22(52.4)	0.49(0.236-1.012)	0.21(0.080-0.569)**
Medical	16(38.1)	26(61.9)	0.33(0.157-0.695)**	
Oncology	31(83.8)	6(16.2)	2.78(1.059-7.275)*	
PICU & NICU	67(65)	36(35)	1	
Educational status				
No formal education	39(78)	11(22)	1	
Primary education	41(51.3)	39(48.8)	0.30(0.133-0.660)**	1
High school and above	54(57.4)	40(42.6)	0.38(0.174-0.834)*	0.22(0.073-0.662)**
Occupation				
Government employee	11(73.3)	4(26.7)	2.84(0.816-9.873)	
Private employee	28(58.3)	20(41.7)	1.45(0.678-3.081)	
Merchant	16(45.7)	19(54.3)	0.87(0.380-1.990)	
Farmer	48(77.4)	14(22.6)	3.54(1.633-7.671)**	3.45(1.116-10.649)*
House wife	31(49.2)	32(50.8)	1	1
Annual income				
< 12,000.00 birr	73(51.4)	69(48.6)	0.14(0.047-0.421)***	0.07(0.015-0.319)**
12,000-24,000 birr	31(64.6)	17(35.4)	0.24(0.073-0.807)*	0.17(0.033-0.895)*
> 24,000 birr	30(88.2)	4(11..8)	1	
Duration of hospital stay				
7 days and below	60(77.9)	17(22.1)	3.68(1.884-7.174)***	4.75(1.840-12.265)**
8-14 days	26(53.1)	23(46.9)	1.18(0.593-2.340)	1
14 days and above	48(49)	50(51)	1	
Adequacy of care				
Adequate	116(72.5)	44(27.5)	6.74(3.531-12.854)***	7.35(2.779-19.41)***
Not adequate	18(28.1)	46(71.9)	1	1
Adequacy of Pain management				
Adequate	118(70.2)	50(29.8)	5.90(3.027-11.501)***	3.89(1.413-10.692)**
Not adequate	16(28.6)	40(71.4)	1	1

COR=Crude odds ratio, AOR=Adjusted Odds ratio, *=p <0.05, **=p <0.01, ***=p <0.001

Those parents who had received adequate care for their child were 7.4 times more likely to be satisfied than those who had not received adequate care [AOR= 7.35(2.779-19.41)] and those who were pleased with the adequacy of pain management were 3.9 times more likely to be satisfied than those who were not pleased with the adequacy of pain management [AOR=3.89(1.413-10.692)] (Table 3).

Discussion

The overall parental satisfaction was found to be 59.8%. This is somewhat comparable with the previous study conducted in the USA (64.5%) [26], but lower than other studies conducted in German (70%) [27] and the USA, which is found to be 69% [28]. This difference might be due to low socioeconomic, cultural variation, and low quality of health services provided in the setting. It might also attribute to the emerging of sophisticated technologies in developed countries which aids the health system to provide quality health care.

In this study, most of the parents agreed that nurses provided compassionate and respectful care by giving immediate response concerning their child's condition. Similarly, other previous study reported that physicians and nurses provided respectful care [29].

The study revealed that physicians and nurses were concerned about child's care and they encouraged parents to involve on their child's care, about course of illness, diagnosis, and treatment. In addition, most nurses and physicians had a friendly relationship with clients and parents. In line with this, other reports showed that intensive care professionals were concerned about patient and family-centered care and involved family members in the care of their child [30]. However, other evidence demonstrated that healthcare professionals find it difficult to build

up a relationship with the family or parents and to meet their needs [31]. This could be due to variation in methodology and variation in study periods.

Above two-third, (67.4%) of parents were satisfied with the information received from nurses concerning their child's course of illness, and 37.5% parents had the opportunity to discuss their child's examination and treatment. In addition, 52.7% of parents were informed by physicians regarding the outcome of procedures done for their child. However, other study conducted in Greek showed that parents had less opportunity to discuss with physicians and nurses concerning child's diagnostic tests, examinations, and treatments [29]. This difference may attribute to social and cultural variation.

Concerning communication and information, most parents from pediatric and neonatal intensive care unit, surgical, medical and oncology wards have felt satisfied. In addition, waiting time to receive care was satisfactory. It is consistent with other studies that showed parents were highly satisfied with level of information provided and communication between staffs and parents [29, 32, 33]. Nevertheless, parents from surgical and medical wards were not satisfied in the hospital environment and their participation and involvement in their child's care.

Furthermore, this study showed that parents who are farmer by their occupation were highly satisfied with the care provided to their child as compared to other occupational categories such as employees, merchant, housewife. Probably, farmers had strong trust towards care and treatment provided by nurses and physicians as result of low educational level. In addition, duration of hospital stay for less than or equal to one week, adequate care, and adequate pain management were predictors of parental satisfaction. This is in agreement with findings observed in other study [29].

Many studies revealed that parental expectation and communication between the parents and health professionals has significant impact on the overall rating of parental satisfaction [7, 8, 29, 34, 35]. Similarly, in this study parental communication was rated with the higher value for their satisfaction. Perhaps, this could be the most important indicator for parental satisfaction concerning clinical decision making, caring their child and family supports.

Conclusion

The study revealed that above half of the parents were satisfied by the care their child had received. It also confirmed that the hospital wards at which the child was hospitalized, parents' educational status, parents' occupation, duration of hospital stay, adequacy of care and adequacy of pain management were determinant factors for parents' satisfaction concerning their child's care. The study strongly suggested that there is a great need for establishment of clinical practices addressing parental involvement in order to optimize parental satisfaction concerning hospital care of ill children.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

All authors have been participated in proposal writing, data collection, data analysis, and manuscript writing. Finally, the paper was approved by all authors.

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REFERENCES

1. Zolaly MA, MBBS. Satisfaction of parents of pediatric patients with physicians' communication skills in Almadinah Almunawwarah, Kingdom of Saudi Arabia, "*Journal of Taibah University Medical Sciences*. 2012; 7(1): 29–34.
2. GarrattAM, Bjertnas OA, Barlinn J. Parent experiences of pediatric care (PEPC) questionnaire: reliability and validity following a national survey, *Acta Paediatric a*. 2007; 6(2): 246-52.
3. Bragadottir H, Reed D. Psychometric instrument evaluation: the pediatric family satisfaction questionnaire. *Pediatr Nurs*. 2002; 28(5) :475-82.
4. Alves SMP, Ribas EL. Hospital care: assessment of users' satisfaction during hospital stay. *Rev Latino-am Enfermagem*. 2007;15 (5) :973-9.
5. Nketiah-Amponsah E. Determinants of Consumer Satisfaction of Health Care in Ghana: Does Choice of Health Care Provider Matter? *Global Journal of Health Science*. 2009;1(2).
6. Fernandez-Castillo A, Vilchez-Lara MJ. Parental beliefs on medication and satisfaction with child healthcare. *Gac Med Mex*. 2015; 151:315-21

7. Ammentorp J, Mainz J, Sabroe S. Determinants of priorities and satisfaction in pediatric care. *Pediatric Nursing*. 2005; 32(4): 333-40.
8. Homer CJ, Marino B, Cleary PD, Alpert HR, Smith B, Ganser CMC, et al. Quality of care at children's hospital: the parents' perspective. *Archives of pediatrics & adolescent medicine*.1999; 153(11):1123-9.
9. DiMatteo MR, Haskard-Zolnierek KB, Martin LR . Improving patient adherence: a three factor model to guide practice. *Health Psychology Review*.2011; 20(39).
10. Suhonen R, Valimaki M, Leino-Kilpi H. Individualized care, quality of life and satisfaction with nursing care. *Journal of advanced nursing*. 2005; 50(3): 283-92.
11. Collins S, Britten N, Ruusuvoori J, Thompson A. Understanding the process of patient participation: Patient participation in healthcare consultations: qualitative perspectives. *Open University Press, Maidenhead*. 2007:
<https://www.mheducation.co.uk/openup/chapters/9780335219643.pdf>
12. AngelaC. Parent Participation in Care: Bridging the Gap in the Pediatric ICU. *Newborn and Infant Nursing Reviews*. 2005; 5(4):179 – 87.
13. Derosé KP, Hays RD, McCaffrey DF, Baker DW. Does physician gender affect satisfaction of men and women visiting the emergency department? *Journal of General Internal Medicine*.2001; 16(4): 218-226.
14. A. Donabedian,A. Quality assurance in health care: consumers' role. *Qual Health Care*. 1999; 1:247-251.
15. International Alliance of Patients' Organizations. Patient-centred healthcare review 2nd edition, International Alliance of Patients' Organizations. 2007.
16. De Melo EMOP, Ferreira PL, De Lima RAG, De Mello DF. The involvement of parents in the health care provided to hospitalized children. *Rev. Latino-Am. Enfermagem* .2014; 22(3): 432-9.
17. Melo E, Martins F, Pleno A, Fontoura C, Seabra F. Cuidados centrados na criança e familia: papel do enfermeiro de referencia. *Linhas de Saude*. 2009; 1: 24-6.
18. The American Academy of Pediatrics Policy Statement (2012). Patient and Family centered care and the pediatrician's role. *Pediatrics*.2012; 129(2): 691-6.

19. Thompson AGH. The meaning of patient involvement and participation in healthcare consultations. *A taxonomy Social Science & Medicine*. 2007; 64: 1297–1310.
20. De Rouck S, Leys M. Information needs of parents of children admitted to a neonatal intensive care unit a review of the literature(1990-2008). *Patient education counseling*. 2009;76: 159-73.
21. Grantham-Mc S, Gregor, Cheung YB, Cueto S, Glewwe P, Richeter L , Strupp, B. Developmental potential in the first 5 years for children in developing countries: Child development in developing countries. *Lancet*. 2007; 369(9555): 60-70.
22. World Bank. Are you being served? New tools for measuring Service delivery. In the international bank for reconstruction and development,” Washington DC. 2008.
23. McPherson ML, Sachdeva RC, Jefferson LS. Development of a survey to measure parent satisfaction in a pediatrics intensive care unit. *Critical care medicine*. 2000; 28(8) :3009-13.
24. Chemir F, Alemseged F, Workneh D. Satisfaction with focused antenatal care service and associated factors among pregnant women attending focused antenatal care at health centers in Jimma town, Jimma zone, South West Ethiopia; a facility based cross-sectional study triangulated with the qualitative study. *BMC research notes*. 2014; 7(1): 164.
25. Akhtari-Zavare M, Abdullah MY, Hassan ST., Said SB, Kamali M. Patient satisfaction: evaluating nursing care for patients hospitalized with cancer in Tehran Teaching Hospitals, Iran. *Global journal of Health Science*. 2011; 2(1):117.
26. Schempf AH, Minkovitz CS, Strobino DM, Guyer B. Parental satisfaction with early pediatric care and immunization of young children: the mediating role of age-appropriate well child care utilization. *Archives of pediatrics & adolescent medicine*. 2007; 161(1) :50-6,2007.
27. Weissenstein A, Straeter A, Villalon G, Luchter E, Bittmann S. Parent satisfaction with a paediatric practice in Germany: A questionnairebased study. *Italian Journal of Pediatrics*. 2011; 37(31).
28. Lew VK, Lalwani K, Palermo TM. Factors affecting parental satisfaction following pediatric procedural sedation. *Journal of clinical anesthesia*. 2010; 22(1): 29-34.

29. Matziou V, Boutopoulou B , Chrysostomou A, Vlachioti E, Mantziou T, Petsios K. Parents'satisfaction concerning their child's hospital care. *Japan Journal of Nursing Scienc.* 2011; 8(2): 163-73.
30. Latour JM, Van Goudoever JB, Duivenvoorden HJ, Van Dam ND, Dullaart E, Albers MJ, et al. Perceptions of parents on satisfaction with care in the pediatric intensive care unit: the EMPATHIC study. *Intensive Care Med.* 2009; 35:1082–1089.
31. Holden J, Harrison L, Johnson M. Families, nurses and intensive care patients: a review of the literature. *J Clin Nurs.* 2002;11(2):140-8.
32. Hasnat M, Graves P. Disclosure of developmental disability: a study of parent satisfaction and the determinants of satisfaction. *Journal of pediatrics and child health.* 2000; 36(1):32-5.
33. Koontz SV. Parental Satisfaction in a Pediatric Intensive Care Unit. Theses, Dissertations and Capstones Paper. 2003.
34. Christopher D.The Impact of a Brief Expectation Survey on Parental Satisfaction in the Pediatric Emergency Department. *ACAD EMERG MED.* 2006; 13(12).
35. Haines C, Childs H. Parental satisfaction with pediatric intensive care. *Paediatric Care.* 2005; 17(7)37-41.

