



Measurement Properties of the Arabic Lebanon Version of the Pediatric Quality of Life Inventory 4.0 Generic Core Scales for Young Child (5 - 7 years), and Child Aged 8 - 12 Years: Quality of Life of in Urban and Rural Children in Lebanon

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ABSTRACT

Background: Health-related quality of life (HRQOL) is recognized as an important health outcome measurement for pediatric patients. HRQOL in children are needed to gain a better understanding of the impact of public policies, interventions, therapies, and the prediction of health and social care need. In view of the lack of reliable HRQOL instruments for children in Arabic, the present study aims to translate the PedsQLTM4.0 self-report and proxy-report for young children (ages 5-7 years), and Children (ages 8-12), evaluate psychometric properties of the Arabic Lebanon version; and to evaluate HRQOL of children in rural and urban areas in Lebanon. **Methods:** PedsQLTM4.0 was translated and adapted into Arabic using the standard approach provided by Varni JW. The Arabic version was administered to a representative sample of 368 children aged 5-12 years and their parents. The psychometric properties were then evaluated. **Results:** The rate of missing data for self-report and proxy-report was very low (0.51% and 0.46% of items). All child self-report, and parent proxy-report subscales exceeded the minimum reliability standard of 0.70 for alpha coefficient, except emotional subscale of young child self-report and proxy-report, and, the social subscale of child self-report (alphas ranging from 0.60 to 0.66). Factor analysis yielded patterns of factor correlation comparable to the original version. The emotional functioning of children is low, where most children feel afraid, sad, and angry. Children resident in rural areas had higher social scores than those in urban areas. The HRQOL of girls is higher than boys; Children undergoing treatment for cancer rated their HRQOL as poorer in all dimensions. **Conclusions:** The results support the validity of the PedsQLTM4.0 self-report and proxy-report Arabic version. Habitat has a minor influence on HRQOL of children. Further psychometric evaluation in a larger sample of children, in other departments of Lebanon is recommended to provide firmer conclusions.

KEYWORDS

PedsQL™4.0; Health Related Quality of Life; Urban; Cross-Sectional Study; Arabic Lebanon; Young Child

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References

- [1] Abdel Hai, R., Taher, E., & Fattah, M. A. (2010). Assessing validity of the adapted Arabic Paediatric Asthma quality of life questionnaire among Egyptian children with asthma. *Eastern Mediterranean Health Journal*, 16, 274-280.
- [2] Bek, N., Simsek, E., Erel, S., Yakut, Y., & Uygur, F. (2009). Turkish version of impact on family scale: A study of reliability and validity. *Health and Quality of Life Outcomes*, 7, 7p. doi:10.1186/1477-7525-7-4
- [3] Berkes, A., Pataki, I., Kiss, M., Kemény, C., Kardos, L., Varni, J. W., & Mogyorósy, G. (2010).

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- [4] Bollinger, M., Power, M. J., Aaronson, N. K., Cella, D. F., & Anderson R. T. (1996). Creating and evaluating cross-cultural instruments. In: B. Spilker (Ed.), *Quality of Life and Pharmacoeconomics in Clinical Trials* 2nd ed. (pp. 659-668). Philadelphia: Lippincott-Raven Publishers.
- [5] Bureau Centrale de la Statistique au Liban (2006). Annuaire, 15-23. http://www.localban.org/IMG/pdf/La_Structure_Demographique.Libanaise.pdf
- [6] Chan, K. S., Mangione-Smith, R., Burwinkle, T. M., Rosen, M., & Varni, J. W. (2005). The PedsQL?: Reliability and validity of the short-form generic core scales and asthma module. *Medical Care*, 43, 256-265. doi:10.1097/00005650-200503000-00008
- [7] Sarah E. B. (2007). Expert committee recommendations regarding the prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. *Pediatrics*, 120, s164-s192. doi:10.1542/peds.2007-2329C
- [8] Costa, S. A. L. M., Vescina, L., & Barcellos Pinheiro, M. D. (2010). Environmental restoration of urban rivers in the metropolitan region of Rio de Janeiro, Brazil. *Environment Urban/Urban Environment*, 4, a13-a26. http://www.vrm.ca/cyber_pub.asp?
- [9] Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334. doi:10.1007/BF02310555
- [10] Dean, B. B., Calimlim, B. C., Sacco, P., Aguilar, D., Maykut, R., & Tinkelman, D. (2010). Uncontrolled asthma: Assessing quality of life and productivity of children and their caregivers using a cross-sectional internet-based survey. *Health and Quality of Life Outcomes*, 8, 10p. doi:10.1186/1477-7525-8-96
- [11] Duhamel F. (2007). La relation entre la problématique de santé et la famille. In F. Duhamel (Ed.), Gaeten Morin éditeur la santé et la famille une approche systémique en soins infirmiers (pp. 3-22). CA: Ga?tan Morin éditeur: Chenelière education.
- [12] Eiser, C., Eiser, J. R., & Stride, C. B. (2005). Quality of life in children newly diagnosed with cancer and their mothers. *Health and Quality of Life Outcomes*, 3, 5p. doi:10.1186/1477-7525-3-29
- [13] Eshaghi, S.-R., Ramezani, M. A., Shahsanaee, A., & Pooya, A. (2006). Validity and reliability of the short form—36 items questionnaire as a measure of quality of life in elderly Iranian population. *American Journal of Applied Sciences*, 3, 1763-1766.
- [14] Estrada, M.-D., Rajmil, L., Serra-Sutton, V., Tebe, C., Alonso, J., Herdman, M., & Starfield, B. (2010). Reliability and validity of the Spanish version of the child health and illness profile (CHIP) child-edition, parent report form (CHIP-CE/PRF). *Health and Quality of Life Outcomes*, 8, 9p. doi:10.1186/1477-7525-8-78
- [15] Farnik, M., Brozek, G., Pierzchala, W., Zejda, J. E., Skrzypek, M., & Walczak, L. (2010). Development, evaluation and validation of a new instrument for measurement quality of life in the parents of children with chronic disease. *Health and Quality of Life Outcomes*, 8, 9p. doi:10.1186/1477-7525-8-151
- [16] Fong, D. Y. T., Ho, S., & Lam, T. (2010). Evaluation of internal reliability in the presence of inconsistent responses. *Health and Quality of Life Outcomes*, 8. doi:10.1186/1477-7525-8-27
- [17] Giampietro, O., Virgone, E., Carneglia, L., Griesi, E., Calvi, D., & Matteucci, E. (2002). Anthropometric indices of school children and familiar risk factors. *Preventive Medicine*, 35, 492-498. <http://www.sciencedirect.com/science>. doi:10.1006/pmed.2002.1098
- [18] Giannakopoulos, G., Dimitrakaki, C., Pedeli, X., Kolaitis, G., Rotsika, V., Ravens-Sieberer, U., & Tountas Y. (2009). Adolescents' wellbeing and functioning: Relationships with parents' subjective general physical and mental health. *Health and Quality of Life Outcomes*, 7, 9p. doi:10.1186/1477-7525-7-100
- [19] Gkoltsiou, K., Dimitrakaki, C., Tzavara, C., Papaevangelou, V., Varni, J. W., & Tountas, Y. (2008). Measuring health-related quality of life in Greek children: Psychometric properties of the Greek version of the pediatric quality of life inventoryTM 4.0 generic core scales. *Quality of Life Research*, 17, 299-305. doi:10.1007/s11136-007-9294-1

- [20] Harrison, M. J., Lunt, M., Verstappen, S. M. M., Watson, K. D., Bansback, N. J., & Symmons, D. P. M. (2010). Exploring the validity of estimating EQ-5D and SF-6D utility values from the health assessment questionnaire in patients with inflammatory arthritis. *Health and Quality of Life Outcomes*, 8, 8p. doi:10.1186/1477-7525-8-21
- [21] Hatzmann, J., Maurice-Stam, H., Heymans, H. S. A., & Grootenhuis, M. A. (2009). A predictive model of health related quality of life of parents of chronically ill children: The importance of care-dependency of their child and their support system. *Health and Quality of Life Outcomes*, 7. doi:10.1186/1477-7525-7-72
- [22] MAPI Institute. Questionnaires and Translations. <http://www.mapi-institute.com/questionnaires-and-translation>.
- [23] Matza, L. S., Swensen, A. R., Flood, E. M., Seckin, K., & Leidy, N. K. (2004). Assessment of health-related quality of life in children: A review of conceptual, methodological, and regulatory issues. *Value in Health*, 7, 79-92. doi:10.1111/j.1524-4733.2004.71273.x
- [24] Mistry, R. D., Stevens, M. W., & Gorelick, M. H. (2009). Health-related quality of life for pediatric emergency department febrile illnesses: An evaluation of the pediatric quality of life inventory? 4.0 generic core scales. *Health and Quality of Life Outcomes*, 7, 9p. doi:10.1186/1477-7525-7-5
- [25] Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw-Hill.
- [26] Oguzturk, O. (2008). Differences in quality of life in rural and urban populations. *Clinical and Investigative Medicine*, 31, E346-E350.
- [27] Panepinto, J. A., Hoffmann, R. G., & Pajewski, N. M (2009). A psychometric evaluation of the PedsQL? family impact module in parents of children with sickle cell disease. *Health and Quality of Life Outcomes*, 7, 11p. <http://www.hqlo.com/content/7/1/32>. doi:10.1186/1477-7525-7-32
- [28] Reinfjell, T., Diseth, T. H., Veenstra, M., & Vikan, A. (2006). Measuring health-related quality of life in young adolescents: Reliability and validity in the Norwegian version of the Pediatric Quality of Life Inventory? 4.0 (PedsQL) generic core scales. *Health and Quality of Life Outcomes*, 4, 9p. doi:10.1186/1477-7525-4-61
- [29] Rumeau-Rouquette, C., Blondel, B., Kaminski, M., et al. (1993). *Epidémiologie Méthodes et Pratique*. Paris: Flammarion Medecine Sciences.
- [30] Sabbah, I., Drouby, N., Sabbah, S., Retel-Rude, N., & Mercier, M. (2003). Quality of life in rural and urban populations in Lebanon using SF-36 health survey. *Health and Quality of Life Outcomes*, 1, 14p. <http://www.hqlo.com/content/1/1/30>. doi:10.1186/1477-7525-1-30
- [31] Sabbah, I., Vuitton, D.-A., Droubi, N., Sabbah, S., & Mercier, M. (2007). Morbidity and associated factors in rural and urban populations of South Lebanon: A cross-sectional community-based study of self-reported health in 2000. *Tropical Medicine and International Health*, 12, 907-919. doi:10.1111/j.1365-3156.2007.01886.x
- [32] Sandeberg, M. af., Johansson, E. M., Hagell, P., & Wettergren, L. (2010). Psychometric properties of the DISABKIDS chronic generic module (DCGM-37) when used in children undergoing treatment for cancer. *Health and Quality of Life Outcomes*, 8, 7p. doi:10.1186/1477-7525-8-109
- [33] Sato, I., Higuchi, A., Yanagisawa, T., Mukasa, A., Ida, K., Sawamura, Y., Kamibeppu, K. (2010). Development of the Japanese version of the pediatric quality of life inventory? brain tumor module. *Health and Quality of Life Outcomes*, 8, 14p. doi:10.1186/1477-7525-8-38
- [34] Schmidt, A., Wenninger, K., Niemann, N., Wahn, U., & Staab D. (2009). Health-related quality of life in children with cystic fibrosis: Validation of the German CFQ-R. *Health and Quality of Life Outcomes*, 7, 10p. doi:10.1186/1477-7525-7-97
- [35] Solans, M., Pane, S., Estrada, M.-D., Serra-Sutton, V., Berra, S., Herdman, M., Alonso, J., & Rajmil, L. (2008). Health-related quality of life measurement in children and adolescents: A systematic review of generic and disease-specific instruments. *Value in Health*, 11, 742-764. doi:10.1111/j.1524-4733.2007.00293.x
- [36] Stevanovic, D. (2009). Serbian KINDL questionnaire for quality of life assessments in healthy children and adolescents: Reproducibility and construct validity. *Health and Quality of Life Outcomes*, 7, 7p. doi:10.1186/1477-7525-7-79
- [37] Sung, L., Klaassen, R. J., Dix, D., Pritchard, S., Yanofsky, R., Dzolganovski, B., Klassen, A. (2009).

- [38] Tarride, J.-E., Burke, N., Bischof, M., Hopkins, R. B., Goeree, L., Campbell, K., Goeree, R. (2010). A review of health utilities across conditions common in paediatric and adult populations. *Health and Quality of Life Outcomes*, 8, 11p. doi: 10.1186/1477-7525-8-12
- [39] Torres, C. S., Paiva, S. M., Vale, M. P., Pordeus, I. A., Ramos-Jorge, M. L., Oliveira, A. C., & Allison, P. J. (2009). Psychometric properties of the Brazilian version of the child perceptions questionnaire (CPQ11-14)—Short forms. *Health and Quality of Life Outcomes*, 7, 7. doi: 10.1186/1477-7525-7-43
- [40] Upton, P., Eiser, C., Cheung, I., Hutchings, H. A., Jenney, M., Maddocks, A., Russell, I. T., & Williams J. G. (2005). Measurement properties of the UK English version of the pediatric quality of life inventory 4.0 (PedsQL) generic core scales. *Health and Quality of Life Outcomes*, 3, 7p. doi: 10.1186/1477-7525-3-22
- [41] Vanderbilt University, Department of Biostatistics (2009). PS: Power and Sample Size Calculation. <http://biostat.mc.vanderbilt.edu/wiki/Main/PowerSampleSize>.
- [42] Varni, J. W. (1998-2012). The PedsQLTM: Measurement model for the pediatric quality of life inventoryTM. Peds MetricsTM Qualifying the QualitativeSM. <http://www.pedsql.org>
- [43] Varni, J. W. et al. (1999). The PedsQL?: Measurement model for the pediatric quality of life inventory. *Medical Care*, 37, 126-139. doi: 10.1097/00005650-199902000-00003
- [44] Varni, J. W. et al. (2001). The PedsQL? 4.0: Reliability and validity of the pediatric quality of life inventory? version 4.0 generic core scales in healthy and patient populations. *Medical Care*, 39, 800-812. doi: 10.1097/00005650-200108000-00006
- [45] Varni, J. W. et al. (2002). The PedsQL?4.0 generic core scales: Sensitivity, responsiveness, and impact on clinical decision-making. *Journal of Behavioral Medicine*, 25, 175-193. doi: 10.1023/A:1014836921812
- [46] Varni, J. W., Burwinkle, T. M., Katz, E. R., Meeske, K., & Dickinson, P. (2002). The PedsQL? in pediatric cancer reliability and validity of the pediatric quality of life inventory? generic core scales, multidimensional fatigue scale, and cancer module. *Cancer*, 94, 2090- 2106. doi: 10.1002/cncr.10428
- [47] Varni, J. W., Burwinkle, T. M., Seid, M., & Skarr, D. (2003). The PedsQL 4.0 as a pediatric population health measure: Feasibility, reliability, and validity. *Ambulatory Pediatrics*, 3, 329-341. doi: 10.1367/1539-4409(2003)003<0329:TPAAPP>2.0.CO;2
- [48] Varni, J. W., Burwinkle, T. M., & Lane, M. M. (2005). Health-related quality of life measurement in pediatric clinical practice: An appraisal and precept for future research and application. *Health and Quality of Life Outcomes*, 3, 9p. doi: 10.1186/1477-7525-3-34
- [49] Varni, J. W., & Burwinkle, T. M. (2006). The PedsQL? as a patient-reported outcome in children and adolescents with Attention- Deficit/Hyperactivity Disorder: A population-based study. *Health and Quality of Life Outcomes*, 4, 10p. doi: 10.1186/1477-7525-4-26
- [50] Varni, J. W., Limbers, C., & Burwinkle, T. M. (2007). Literature review: Health-related quality of life measurement in pediatric oncology: Hearing the voices of the children. *Journal of Pediatric Psychology*, 32, 1-13. doi: 10.1093/jpepsy/jsm008
- [51] Varni, J. W., & Limbers, C. A. (2009). The PedsQL? 4.0 generic core scales young adult version: Feasibility, reliability and validity in a university student population. *Journal of Health Psychology*, 14, 611-622. doi: 10.1177/1359105309103580
- [52] Verrips, E. G. H., Vogels, T. G. C., Koopman, H. M., Theunissen, N. C. M., Kamphuis, R. P., Fekkes, M., Wit, J. M, & Verloove-Vanhorick, P. S. (1999). Measuring health-related quality of life in a child population. *International Child Health*, 9, 188-193. <http://eurpub.oxfordjournals.org/content/9/3/188.full.pdf>.
- [53] Villalonga-Olives, E., Rojas-Farreras, S., Vilagut, G., Palacio-Vielra, J. A., Valderas, J., & Herdman, M. (2010). Impact of recent life events on the health related quality of life of adolescents and youths: The role of gender and life events typologies in a follow-up study. *Health and Quality of Life Outcomes*, 8, 9p. doi: 10.1186/1477-7525-8-71.
- [54] Ware, J. E. Jr. (1997). SF-36 health survey manuel and interpretation guide. Second printing. Boston, MA: The Health Institute, New England Center.

