PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Correlates of help-seeking by parents for the socio-emotional development of their 3-year-old children: a longitudinal study.
AUTHORS	Luo, Jie; Raat, Hein; Franse, Carmen; Bannink, Rienke; BAI, GUANNAN; van Grieken, Amy

VERSION 1 – REVIEW

REVIEWER	Johnston, Oliver University of Connecticut, Department of Psychological Sciences
REVIEW RETURNED	08-May-2021

GENERAL COMMENTS	In this manuscript, the authors report the results of a one-year follow-up study of parental help-seeking in a large community sample of parents of 2-year-olds. The manuscript is well-written, succinct, and includes several key strengths such that it uses a large community-based sample and examines parental help-seeking for a younger child population. Furthermore, the descriptive results (rates of help-seeking, sources of help-seeking, etc.) can be useful for public health initiatives related to child mental health. Beyond these strengths, the manuscript also includes some important areas for revision. 1. Rationale for Three Separate Models. The authors should present a rationale for why they have opted to utilized three nested models for the help-seeking analyses. Are there specific reasons to test predisposing variables alone (as in model 1) and then predisposing and enabling variables alone (as in model 2), before testing a model with all three sets fo variables? Conversely, if this technique was employed to identify relative strengths of predictor sets towards explaining variance in help-seeking, the authors should provide a direct test of that (e.g., change in chi-square). 2. Multicollinearity. The authors should discuss issues of possible multicollinearity among predictors and report any specific tests (e.g., variance inflation factor) to identify and/or rule-out multicollinearity. It does not seem conceptually impossible that several of the items (e.g., discussion of child socio-emotional development and previous help-seeking) could be linearly related to help-seeking which could result in inaccurate parameter estimates and/or predictor significance. Their current results should be interpreted with significant caution if multicollinearity has not been assessed. 3. Parental Work Status. Please describe how parental work status was coded – particularly within two-parent families. For example, if a stay-at-home parent was the study respondent and their spouse was employed, how would this be coded in the analyses?

	4. Table 1 p-values. Please clarify where the p-values in Table 1 are coming from. It appears that they are looking at differences between help-seeking and non-help-seeking parents on the study variables. If so, state this directly and what analyses were used to test for those differences (e.g., t-tests, anova) and any additional adjustments related to multiple comparisons. 5. Page 8, line 55 □ Possible spelling error “hieratical” □ hierarchical?

REVIEWER	Sikander, Siham Health Services Academy
REVIEW RETURNED	11-Jun-2021

GENERAL COMMENTS	Great topic to pick an describe indeed. Just a few minor comments/suggestions for the authors to consider Methods Section: Elaborate if the questions asked by the 2014-2015 teams completely maps the Andersen & Newman's framework of Health Service Use? If not then what were the gaps? Similarly, elaboration on the RCADS is needed. In the discussion section it appears that it is lists as a missed opportunity, while in the methods or in the intro section it appears to have been used. More details of the assessors will be useful to have. Lastly, it will be good know more about the baseline characteristics of the large number of people who refused to be part of the study? Was there any differential loss to follow up? The key issue in longitudinal studies is loss to follow up. And the approach to carry out sensitivity analysis to tease out if the correlation seen is or might be driven by the differential loss to follow up. Results: As stated above, more info is need on the ones who refused, since that is a significantly large number. Also is there a need to do sensitivity analysis as part of the appendix to ensure that the loss to follow up does not need to be accounted for in the analysis. Discussion: Perhaps the authors should consider using correlation or perhaps predictors as opposed to "association". The later term carries a very strong connation of causality, which clearly with this study design and large number of refusals, is not possible. Authors should talk about the limitations of large number of people in the cohort who opted out. What might this mean (depending on what the sensitivity analysis shows). What is the policy or translational aspect of the findings? This was seemingly missing form the discussion. Lastly, what will this set of results mean for the future direction of research? Will it lead to any intervention targets.

REVIEWER	Thomas, Roger University of Calgary, Family Medicine

REVIEW RETURNED	04-Sep-2021

GENERAL COMMENTS	This is an excellent and useful study Measures; Can you provide validity and reliability data for BITSEA and the Toddler Quality of Life Questionnaire please? Results Please comment on the generalisability of your study considering 11245 questionnaires, 8937 well child visits, 2305 1st and 1540 questionnaires. Do you realistically think that missing data can be supplied by the computer methods you used? Outcomes: 1. your outcomes on the three measures (BITSEA Compliance numbers are: 178 (no help seeking) 124 (help seeking); Parental Satisfaction with Child's Development (Not satisfied (78 no help seeking), (46 help seeking); Discussion 201 and 111. Which combination most identifies need for help seeking? 2. Please compare outcomes with other outcome measures e.g., PEDS (Parent Evaluation of Developmental Status), (which comprises open ended questions for parents to enter their concerns) and is normed on 3000 children and also milestones are normed. 3. Based on your findings what % of children in need/at risk are being identified and what are the next evidence-based steps for the organising authorities responsible for child development?

VERSION 1 – AUTHOR RESPONSE

REVIEWER 1
GENERAL COMMENT
In this manuscript, the authors report the results of a one-year follow-up study of parental help-seeking in a large community sample of parents of 2-year-olds. The manuscript is well-written, succinct, and includes several key strengths such that it uses a large community-based sample and examines parental help-seeking for a younger child population. Furthermore, the descriptive results (rates of help-seeking, sources of help-seeking, etc.) can be useful for public health initiatives related to child mental health. Beyond these strengths, the manuscript also includes some important areas for revision.

COMMENT 1
Rationale for Three Separate Models. The authors should present a rationale for why they have opted to utilized three nested models for the help-seeking analyses. Are there specific reasons to test predisposing variables alone (as in model 1) and then predisposing and enabling variables alone (as in model 2), before testing a model with all three sets of variables? Conversely, if this technique was employed to identify relative strengths of predictor sets towards explaining variance in help-seeking, the authors should provide a direct test of that (e.g., change in chi-square).

RESPONSE 1

We thank the reviewer for pointing out to add the rationale for three separate models. Our aim was to identify the contribution of the three predictor sets towards help-seeking. The χ2 calculated by the Omnibus Test of each block was added to the table 2 to show the contribution of each block. We had added the text in the method section: “The Omnibus Test, a likelihood-ratio chi-square statistic, was used to assess the contribution of each block of variables to the model.50” (see Page 8 Line 238-240) and the χ2 of the blocks in the table 2 (see Page 12)

COMMENT 2
Multicollinearity. The authors should discuss issues of possible multicollinearity among predictors and report any specific tests (e.g., variance inflation factor) to identify and/or rule-out multicollinearity. It does not seem conceptually impossible that several of the items (e.g., discussion of child socio-emotional development and previous help-seeking) could be linearly related to help-seeking which could result in inaccurate parameter estimates and/or predictor significance. Their current results should be interpreted with significant caution if multicollinearity has not been assessed.

RESPONSE 2
Thank you for your considerations. We adapted the text in the result section to provide more information: “Multicollinearity was examined using correlation analyses for categorical variables. Maximal coefficient r=0.254 indicated a weak correlation (0.2<r<0.4), therefore, all variables were included in the regression analyses.” (see Page 8, Line 243-245)

COMMENT 3
Parental Work Status. Please describe how parental work status was coded – particularly within two-parent families. For example, if a stay-at-home parent was the study respondent and their spouse was employed, how would this be coded in the analyses?

RESPONSE 3
Thank you for pointing this out. We adapted the text in the method section to clarify this variable: “Respondents to the questionnaire were asked to report their work status. Parental work status reflects in 89.3% the mother’s employment and 10.7% the father’s work status.” (see Page 7, Line 190-191).

COMMENT 4
Table 1 p-values. Please clarify where the p-values in Table 1 are coming from. It appears that they are looking at differences between help-seeking and non-help-seeking parents on the study variables. If so, state this directly and what analyses were used to test for those differences (e.g., t-tests, anova) and any additional adjustments related to multiple comparisons.

RESPONSE 4
We thank for the reviewer for this comment and added the text in the footnote of Table 1: “Data presented as mean ± SD or number (percentage). Significant differences between two subgroups of help-seeking and non-help-seeking parents were evaluated at 0.05 level using independent T tests for continuous variables and χ2 tests for categorical variables.” (see Page 11, Table 1, Line 279-281)

COMMENT 5
Page 8, line 55 □ Possible spelling error “hieratical” □ hierarchical?

RESPONSE 5
We have revised this spelling error. (see Page 8, Line 235)

REVIEWER 2

GENERAL COMMENT
Great topic to pick an describe indeed.
RESPONSE
We thank the reviewer for this positive comment.

METHODS
COMMENT 1
Elaborate if the questions asked by the 2014-2015 teams completely maps the Andersen & Newman's framework of Health Service Use? If not then what were the gaps?

RESPONSE 1
We thank for the reviewer for the comment. In the current study we focused on the predisposing, enabling, and need factors of the Andersen & Newman framework. We added the text in the discussion section “In the present study predisposing, enabling, and need factors were evaluated in relation to help-seeking behavior. The Andersen & Newman's framework composes of environment, population characteristic, health behavior, and outcome related to help-seeking behavior. In the current study the information on the environment (including the health care system and external environment), and the information on the outcome (including perceived health status, evaluated health status, and consumer satisfaction) was not collected. We recommend future studies to get a complete overview of factors associated with help-seeking behavior.” (see Page 17, Line 363-369)

COMMENT 2
Similarly, elaboration on the RCADS is needed. In the discussion section it appears that it is lists as a missed opportunity, while in the methods or in the intro section it appears to have been used. More details of the assessors will be useful to have.

RESPONSE 2
We thank for the reviewer for the comment. We believe this may be a misunderstanding due to our unclear and incomplete description regarding the RCADS. The age limitation of RCADS is 8-18 years old. Therefore, we did not apply the RCADS to 3-year-old children in this study. We adapted the text in the introduction: “In order to identify psychosocial problems, validated instruments are often used for diagnosing emotional and behavioral problems in children under 18 years old. 12 13-15” (see Page 3, Line 84-85) and in the discussion section “First, help-seeking for perceived social and emotional problems was parent-reported. Parents may have under- or overestimated their child’s socio-emotional development. The assessment focussed on parents’ perceived socio-emotional problems contrary to a clinical diagnosis. In our analyses we did correct for risk of psychosocial problems at age 2-years, assessed by the BITSEA. A combination of clinical diagnose instruments, such as the Child Behavior Checklist (CBCL), with parent perceived problems may contribute to a better understanding of parental help-seeking behavior.14” (see Page 19, Line 448-454)

COMMENT 3
it will be good know more about the baseline characteristics of the large number of people who refused to be part of the study?

RESPONSE 3
We thank for the reviewer for the suggestions. We unfortunately do not have information of those parents refusing to participate. Parents who intended to attend this study had to come to the 2-year child visit to give back the consent and baseline questionnaire. we adapted the text in the method section regarding the study population: ”From November 2014 to August 2015, 8937 parents attended for their 2-year child well-child visit, according to the YHC register. Of these, 2316 parents gave their

consent to participate in the study (participation rate=25.9%) and 2305 parents completed the first questionnaires (response rate=99.5%)." (see Page 5, Line 137-140)
We added a methodological considerations to the limitation: "Fourth, a limitation is the participation rate and the loss to follow up in the present study. The participation rate was 25.9% which is lower than reported participation rates in large birth cohorts (around 30-40%).76 We were not able to receive information from parents themselves as to why they refused to participate. Common reasons for non-participation are a lack of interest or a lack of time.77,78 In addition, we cannot ascertain that all parents received the invitation to participate nor that they actually visited YHC at child aged 2-years. Furthermore, the parents with a younger child, a Dutch ethnic background, an older age, and a higher education level were more likely to participate in the follow-up of the study. Consequently, the findings are applicable to the population under study. Regardless, efforts should be made to involve hard-to-reach population in research studies. " (see Page 20, Line 462-470)

COMMENT 4
Was there any differential loss to follow up? The key issue in longitudinal studies is loss to follow up. And the approach to carry out sensitivity analysis to tease out if the correlation seen is or might be driven by the differential loss to follow up.

RESPONSE 4
We thank for the reviewer for the suggestions. We adapted text in the result section: "Compared to participants lost in the follow-up (n=775), participants in the follow-up (n=1540) were, as a child, more likely to be at a younger age and have a Dutch ethnic background and, as a parent, to be at an older age and have a higher educational level (all $p<0.001$). No significant differences were found between boys and girls ($p>0.05$) (Supplementary Table S2)." (see Page 16, Line 336-339). The sensitivity analysis of the population lost-to-follow-up was presented in Supplementary Table S2.

RESULTS
COMMENT 5
As stated above, more info is need on the ones who refused, since that is a significantly large number. Also is there a need to do sensitivity analysis as part of the appendix to ensure that the loss to follow up does not need to be accounted for in the analysis.

RESPONSE 5
Please see our response to comment number 3 and 4.

DISCUSSION
COMMENT 6
Perhaps the authors should consider using correlation or perhaps predictors as opposed to "association". The later term carries a very strong connation of causality, which clearly with this study design and large number of refusals, is not possible.

RESPONSE 6
We thank for the reviewer for the suggestion. We have revised to correlates throughout the manuscript.

COMMENT 7
Authors should talk about the limitations of large number of people in the cohort who opted out. What might this mean (depending on what the sensitivity analysis shows).

RESPONSE 7
Regarding the limitation, please see our response to comment number 3 and 4.

As for the meaning of the refusal of participation, it is suggested that the impact of low participation rate and the selection bias might occur when the refusal is associated with both independent factors and outcomes. Since we were not able to receive information from parents themselves as to why they refused to participate, we could not know the influence of the refusal by non-response analysis in the study. We adapted text in the discussion: ” We were not able to receive information from parents themselves as to why they refused to participate. Common reasons for non-participation are a lack of interest or a lack of time.77,78 In addition, we cannot ascertain that all parents received the invitation to participate nor that they actually visited YHC at child aged 2-years.” (see Page 20 Line 463-467)

According to the sensitivity analysis of the population lost-to-follow-up, we adapted text in the discussion: Furthermore, the parents with a younger child, a Dutch ethnic background, an older age, and a higher education level were more likely to participate in the follow-up of the study. Consequently, the findings are applicable to the population under study. Regardless, efforts should be made to involve hard-to-reach population in research studies.” (see Page 20, Line 470-473)

COMMENT 8
What is the policy or translational aspect of the findings? This was seemingly missing from the discussion.

RESPONSE 8
We added the implication for policy in the discussion section: “In addition, investments might be made towards improving parents’ access to formal health care use for their children (e.g., provide the access to online consultation given by psychological professionals). Previous research has suggested, especially among non-native parents, limited and difficult access to health care facilities.28,75” (see Page 19, Line 431-434)

COMMENT 9
Lastly, what will this set of results mean for the future direction of research? Will it lead to any intervention targets.

RESPONSE 9
We thank for the reviewer for the comments. We added the text in the discussion section: “Longitudinal and experimental studies are recommended to examine the differential pathways between parent-perceived versus diagnosed child psychosocial problems and the use of health care. A range of factors should be studied as contemplated by the Andersen model; taking into account access parents have to health care, but also barriers they perceive to make use of health care. Qualitative and quantitative methods should be combined.“ (see Page 19, Line 434-438).

REVIEWER 3

GENERAL COMMENT
This is an excellent and useful study

MEASURES
COMMENT 1
Can you provide validity and reliability data for BITSEA and the Toddler Quality of Life Questionnaire please?

RESPONSE 1

We thank for the reviewer for the suggestions. We have adapted the text in the method section, as follows: “In the Dutch population, the BITSEA Problem and Competence scale respectively had internal consistency Cronbach’s alphas of 0.76 and 0.63, test–retest reliability of 0.75 and 0.61, and interrater reliability correlations of 0.30 and 0.17.44” (see Page 7, Line 203-205)
“The Dutch version of ITQOL-SF47 has a relatively high reliability and validity: in this study the Cronbach’s α were all > 0.70, and all Test-retest Interclass Correlation Coefficients (ICCs) ≥0.50.47” (see Page 8, Line 218-220)

RESULTS
COMMENT 2
Please comment on the generalisability of your study considering 11245 questionnaires, 8937 well child visits, 2305 1st and 1540 questionnaires. Do you realistically think that missing data can be supplied by the computer methods you used?

RESPONSE 2
Please see our reply to comment 3 and comment 4 of reviewer 2.

OUTCOME
COMMENT 3
your outcomes on the three measures (BITSEA Compliance numbers are: 178 (no help seeking) 124 (help seeking); Parental Satisfaction with Child's Development (Not satisfied (78 no help seeking), (46 help seeking); Discussion 201 and 111. Which combination most identifies need for help seeking?

RESPONSE 3
We thank for the reviewer for the comment. We adapted text in the discussion section: “The need factors in the Andersen & Newman's framework consist of perceived need and evaluated need. Parent-reported general health of the child and parental satisfaction with child's development reflect most closely the perceived need, while the BITSEA-score and discussion with YHC professionals most closely reflect the evaluated need (i.e., being more clinical assessments). ” (see Page 18, Line 393-396) “

COMMENT 4
Please compare outcomes with other outcome measures e.g., PEDS (Parent Evaluation of Developmental Status), (which comprises open ended questions for parents to enter their concerns) and is normed on 3000 children and also milestones are normed.
RESPONSE 4
We thank for the reviewer for the comment. We added text in the discussion section: “In total, 6.0% of 1507 children were at risk of socio-emotional problems measured by BITSEA Problem scale, and 12% were at risk of delay of socio-emotional competence measured by BITSEA Competence scale. The rates of socio-emotional development problems in this study were comparable with these measured by other instruments, such as 17% at moderate risk and 11% at high risk of developmental delays measured by the Parent Evaluation of Developmental Status among children (0-5 years old) in the American National Survey of Children’s Health.71,72.” (see Page 18, Line 414-419)

COMMENT 5
Based on your findings what % of children in need/at risk are being identified and what are the next evidence-based steps for the organising authorities responsible for child development?

RESPONSE 5

We thank for the reviewer for the comment. We add the text in the discussion section: “In addition, investments might be made towards improving parents’ access to formal health care use for their children (e.g., provide the access to online consultation given by psychological professionals). Previous research has suggested, especially among non-native parents, limited and difficult access to health care facilities.28, 74 Longitudinal and experimental studies are recommended to examine the differential pathways between parent-perceived versus diagnosed child psychosocial problems and the use of health care. A range of factors should be studied as contemplated by the Andersen model; taking into account access parents have to health care, but also barriers they perceive to make use of health care. Qualitative and quantitative methods should be combined.“ (see Page 19, Line 431-438).

VERSION 2 – REVIEW

REVIEWER	Sikander, Siham Health Services Academy
REVIEW RETURNED	22-Oct-2021

GENERAL COMMENTS	All comments raised addressed adequately

REVIEWER	Thomas, Roger University of Calgary, Family Medicine
REVIEW RETURNED	28-Oct-2021

GENERAL COMMENTS	Thanks to the authors for their careful revision. "13, 46 In the Dutch population, the BITSEA Problem and Competence scale respectively had internal consistency Cronbach’s alphas of 0.76 and 0.63, test–retest reliability of 0.75 and 0.61, and interrater reliability correlations of 0.30 and 0.17.47 The Dutch version of ITQOL-SF47 has relatively high reliability and validity: in this study the Cronbach’s α >0.70, and all Test–retest Interclass Correlation Coefficients (ICCs) ≥0.50.50" The ICC s are low and a comment is merited. The uptake of advice is low and you have indicated some reasons for this. As this is a key finding of your useful study amplification of your statement about reasons and suggested next steps and innovations to increase the uptake of advice and help woulkd be appreciagted.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Dr. Siham Sikander, Health Services Academy Comments to the Author:

All comments raised addressed adequately

Reviewer: 3

COMMENT 1

Prof. Roger Thomas, University of Calgary Comments to the Author:

Thanks to the authors for their careful revision.

"13, 46 In the Dutch population, the BITSEA Problem and Competence scale respectively had internal consistency Cronbach's alphas of 0.76 and 0.63, test–retest reliability of 0.75 and 0.61, and interrater reliability correlations of 0.30 and 0.17.47

The Dutch version of ITQOL-SF47 has relatively high reliability and validity: in this study the Cronbach's α >0.70, and all Test–retest Interclass Correlation Coefficients (ICCs) ≥0.50.50"

The ICC s are low and a comment is merited.

The uptake of advice is low and you have indicated some reasons for this. As this is a key finding of your useful study amplification of your statement about reasons and suggested next steps and innovations to increase the uptake of advice and help would be appreciated.

RESPONSE 1

We thank the editor for pointing this out and the suggestion. The cited low interrater reliability correlations (0.3 and 0.17) of BITSEA were the correlations between parents and daycare teachers, which are typically lower than the correlations between parents. Therefore, we removed the text to avoid misunderstanding:" In previous study of Kruizinga among Dutch parents and children (n=3127), the BITSEA showed Cronbach's alphas of 0.76 and 0.63, and a test–retest reliability of 0.75 and 0.61.37 In the present study, the Cronbach's alphas were 0.74 and 0.54." (see Page 7, Line 188-191)

In addition, we adapted the text to report the related coefficients of two subscales of ITQOL-SF47 used in the present study, instead of the whole measurement, as follows:" 50In previous research by Raat among general Dutch children (n=500), these two subscales showed Cronbach's alphas of 0.76 and 0.63, and a test–retest reliability of 0.75 and 0.6.40 The Cronbach's alphas of the general health and parent-satisfied development in this study were 0.59 and 0.67." (see Page 7, Line 206-209).

Lastly, we added the text in the discussion part to provide more information:" Regarding the BITSEA and subscales of the ITQOL-SF47 in this study, some coefficients of reliability were lower than the suggested guideline of 0.70, especially the interrater reliability correlations (0.3 and 0.17) of BITSEA. However, these reported low correlations were the correlations between parents and daycare teachers, which are typically lower than the correlations between parents.76 We recommend future studies to evaluate the reliability and repeated assessments especially in diverse samples to check the robustness of our findings. " (see Page 19, Line 421-426)