Study on the Travel Barriers and Social Supports of Autistic Children Using Knowledge Graph

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Abstract. This paper analyzes the travel barriers and social supports of autistic children using knowledge graph based on CiteSpace software and Web of Science database. In this study, parents of autistic children are selected as semi-structured interview subjects, and the travel barriers of autistic children and related social supports are expounded in depth. Results show that the travel barriers of autistic children are mainly reflected in three aspects: internality, structure and attitude; meanwhile, parents go through three stages of emotional change, from losing temper to accepting the reality and then actively seeking rehabilitation treatment; moreover, social supports for autistic children involve six aspects: social institutions, parents of autistic children, government, professional tourism teams, social groups, education institutions and parents of other children.

Keywords: Autistic children · Travel barriers · Social support · Knowledge graph · Semi-structured interview

1 Introduction

For autistic children, children's tourism is an effective way for them to actively integrate into society [1]. However, due to the defects of autistic children, they face a series of challenges when traveling [2]; moreover, increasing financial and psychological burdens also make it difficult for parents to deal with autistic children's travel [3, 4].

In this paper, parents were selected as the interview subjects to obtain interview materials about autistic children's travel, and the travel barriers of autistic children were analyzed and studied using the perspective of social support theory, trying to effectively solve the special needs of autistic children's travel [5].

2 Theoretical Basis and Literature Review

2.1 Autistic Children and Their Travel Significance

As illustrated in the keyword knowledge graph of Fig. 1. [6], the research field of autistic children is becoming more and more extensive, mainly focusing on special education, music therapy, quality of life, etc. Travel has a great rehabilitative effect on disabled children. Most of the literature focuses on the education and cognitive behavior intervention of autistic children, and the research content is mostly theoretical.

Fig. 1. Keyword Knowledge Graph of autistic children [Owner-draw]

Fig. 2. Keywords Knowledge Graph of Social support theory [Owner-draw]

2.2 Social Support Theory

As shown in the knowledge graph of Fig. 2, social support can be studied extensively using multiple terms, such as social network; social integration; functional, etc. College students, teenagers, children in distress, and lost-only families are all hot research objects related to the topic of social support [7].

Table 1. Basic information of respondents [Owner-draw]

Order	relation	age	career	Level of education	Children age
A1	Father and son	41	Worker	High school student	6
A2	Mother and son	35	Doctor	A graduate student	10
A3	Two generations	58	Null	Primary student	11
A4	Father and daughter	28	Teacher	A graduate student	9
A5	Father and son	31	Civil servants	undergraduate	7
A6	Mother and son	36	Sales	Specialized subject	12
A7	Brother	23	Students	undergraduate	6
A8	Mother and daughter	37	Workers	Junior student	14
A9	Mother and son	29	Null	Specialized subject	5
A10	Mother and daughter	34	Teacher	undergraduate	7
A11	Mother and son	33	Soho	Specialized subject	7
A12	Two generations	56	Null	Primary student	10
A13	Father and daughter	29	Soho	High school student	4
A14	Two generations	60	Null	Primary student	12
A15	Mother and son	32	Worker	undergraduate	8

3   Study Design

3.1   Basic Characteristics of Respondents

In the study, semi-structured interview was used, and parents of autistic children were interviewed. The detail data is listed as Table 1.

4   Results

4.1   State of Psychological Development

After a child is diagnosed with autism, the emotional development process of the family generally includes three stages (Fig. 3).

(1)   Emotions are out of control. The emotions of the parents went through two stages, from mixed emotions to disbelief. Here, A3 felt "confused, angry and sad"…
(2)   Gradually come back to reason. At this stage, parents will take their children to hospitals for reexamination.
(3)   Passive or active acceptance of the truth. At this stage, parents have two manifestations: After seeking medical treatment for many times, parents showed "acceptance" (A12).
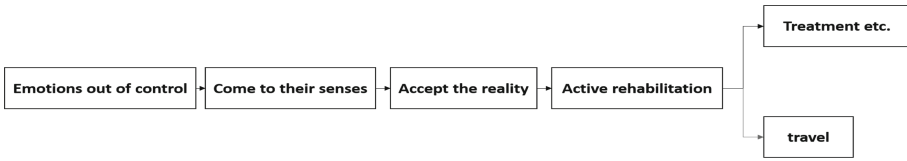
Fig. 3. Autistic children's travel development and parents' action logic [Owner-draw]

4.2 Travel Barriers of Autistic Children

(1) Internal barriers. The dysfunction of autistic children: one is communication disorder. Other children are not willing to play with them, so they play by themselves (A9).

(2) Structural barriers. i. Travel time: Family members accompany children to travel, which requires time for both children and their families (A4, A5, A6, A10). ii. Travel expenses: A7 indicates that families of autistic children cannot afford travel expenses at present. Iii. Lack of professional travel escort.

(3) Attitude barriers. The first is the attitude of the traveling companions. A1 worries about who the traveling companions are and whether they will discriminate against or bully children. The second is the attitude of the public. The unequal treatment (A13) and severe discrimination (A11) of autistic children by the public not only chill the family.

4.3 Social Supports for Autistic Children's Travel

According to the interviews with parents of autistic children, the following six aspects of social support are needed to overcome the travel barriers of autistic children.

(1) Government: Formulate policies to care for autistic children (A1), encourage autistic children to travel (A14), and provide substantive help (A5, A10, A12).

(2) Professional tourism agencies: To form a professional team or organization.

(3) Parents of autistic children: Some parents of autistic children do not allow their children to travel due to concerns about travel safety or emotional control.

(4) Social groups and institutions: Pay more attention to autistic children, and treat autistic children rationally and normally (A10, A14). "

(5) Educational institutions: strengthen publicity and education about autistic children, and do not be biased (A2).

(6) Parents of other children: A4 emphasizes that parents of other children of the same age should correctly understand, guide and educate their children, and do not discriminate against autistic children.

5   Conclusions

This study draws the following conclusions: The travel barriers of autistic children is reflected in three aspects: internal disorder, structural disorder and attitude disorder; After knowing that the child was diagnosed with autism, parents' emotional development experienced three stages of change; Social supports for children with autism involve six aspects.

References

1. Asghar, I., Cang, S., & Yu, H. (2020). An empirical study on assistive technology supported travel and tourism for the people with dementia. Disability and rehabilitation: Assistive technology, 15(8), 933-944. https://doi.org/10.1080/17483107.2019.1629119
2. Che, W. & Lei, X. (2013). Psychological stress of parents of autistic children and its influencing factors. Journal of Shanxi Agricultural University (Social Science Edition) (06),623-630. doi:https://doi.org/10.13842/j.cnki.issn1671-816x.2013.06.022.
3. Ban, Y. & Sun, J. (2017). Social support and parental pressure of parents of autistic children: analysis of the effect of identity and income. Journal of Special Education in China (01),58-64.
4. Jo Bromley. (2004). Mothers supporting children with autistic spectrum disorders. Autism (4). doi:https://doi.org/10.1177/1362361304047224.
5. Alison J. McIntosh. (2020).The hidden side of travel: Epilepsy and tourism. Annals of Tourism Research(C). doi:https://doi.org/10.1016/j.annals.2020.102856.
6. Chen Y, Chen C M, Liu Z Y, Hu Z G & Wang X W. (2015). Methodological function of CiteSpace knowledge graph. Scientific Research (02), 242-253. doi:https://doi.org/10.16192/j.cnki.1003-2053.2015.02.009.
7. Gao X C, Wang D Y & Wang Y Q. (2021). The relationship between parents and mental health of mentally impaired children from the perspective of social support: based on a survey in Qinba Mountain area. Journal of Northwest University (Philosophy and Social Sciences Edition) (02),76-84. doi: https://doi.org/10.16152/j.cnki.xdxbsk.2021-02-008.