

Application of Write-and-draw Technique in Pediatric Dentistry: A Pilot Study

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Abstract

Background: Write-and-draw technique, which has been gaining popularity as a tool to capture views of children in the field of medicine, can be applied to seek views of children on pediatric dentists and dental operator. **Aim:** The aim of the study was to seek the views of children on what they think about visiting a dental care setting and also to ascertain the views of children on pediatric dentists and dental operator. **Methodology:** Fifty children aged 7–14 years selected on convenience sampling included in the study after obtaining informed assent were divided into two groups; Group A ($n = 25$) included children with the past dental experience and Group B ($n = 25$) included children without previous dental experience. Children with special health-care needs were excluded from the study. Those teachers involved in the data collection process were given a full script (quote) to follow. **Results:** Data analysis was performed using Riley's technique (1996) of coding data through the use of colored highlighter pens to identify common themes. Common themes emerged from the analysis were empathy, painless injection, white coat anxiety, and play area. **Conclusion:** Write-and-draw technique can be effectively applied as a tool to identify the opinions of children regarding pediatric dentists and dental operator and dental operator.

Key words: Emotional status, Riley's technique, write-and-draw

INTRODUCTION

Acceptable/positive behavior of children in a dental setting is governed by several factors such as their attitude toward dentistry^[1] and the emotional status.^[2] Subjective scales that are used to measure the anxiety of children undergoing dental treatment,^[3] child's perception of dental treatment,^[4] parental attitude toward behavior guidance technique employed on their child, etc., cannot assess the attitude of a child toward dentistry. However, the reliability and validity of these scales are questionable, limiting them from measuring the attitude of children.^[5]

Drawings, considered as familiar and enjoyable activity,^[6] can be used to assess the emotional status of children as it was established that art projects the inner experience of children.^[7] It could also act as a sign of pain experience in children.^[8] "Write/talk and draw technique" or "Draw and write/talk" is a method that involves making a child to draw as well as write/talk about their views (operator can write if needed) which enable us to understand child's beliefs, views, and values^[9] so that their attitude and emotional issues can

be assessed.^[6] This technique involves making the children to draw a picture regarding a situation or experience by giving prompts and also to write about their views on which a dominant qualitative data could be generated that provide instant information and promising themes.^[10]

This enables every child to participate in the research process, and the opinions of every child will be given due weight unlike the focus groups in which opinions of the children who were more vocal, were considered and participation of younger children is limited due to temporal restraints.^[11]

In the field of medicine, drawings were used to find out views of hospitalized children regarding hospital environment and doctors.^[12] In the field of dentistry, drawings were proved to act as narrative of child's experience and inner emotions.^[8] In the present study, we employed this technique (write-and-draw)

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to ascertain children's views on pediatric dentists and dental setting.

The aim of the study was to seek the views of children on visiting a dental care setting as well as to ascertain the views of children on pediatric dentists and dental operatory.

METHODOLOGY

After obtaining the Institutional Ethical Clearance, a two-arm parallel, cross-sectional study was conducted in a government school, using write-and-draw technique to assess the views of children regarding dental care setting and pediatric dentists. Methodology followed in a previous study was adopted but modified; no focus group meeting was conducted; entire subjects of interest were divided into two groups; and also, prompts given to children were modified.^[13] Fifty children aged 7–14 years selected on convenience sampling were included in the study after obtaining informed assent. They were divided into two groups; Group A ($n = 25$) included children with the past dental experience and Group B ($n = 25$) included children without previous dental experience. Children with special health-care needs were excluded from the study.

Those teachers involved in the data collection process were given a full script (quote) to follow including the instructions on how to gain consent or assent. Once the rapport with the child was established and the assent obtained, teachers/dentists used the prompts from the provided script to help the individual child to complete the exercise. The participating children were asked to draw a picture about the dentist and dental setting as well as write about their thoughts on an A4 size sheet provided to them [Figure 1]. The teacher was asked to help with the drawings of the children, if necessary. Common themes were colored and presented as results upon completion of task using colored highlighter pens.

Prompts were given to children in our vernacular language (Telugu) in the following method:

- Today, we will be talking about what dentists can do to care for children and young people who visit the dental hospital
- As you had a previous dental experience, I expect that you have some ideas about the dentists and dental setting (Group I)
- We want to listen to your thoughts about coming to a dental hospital and what helps you feel better when dentists care for you (Group II)
- Can you draw a picture about the dentist and dental setting? What do you think on how the dentist can help children feel better when you visit dental hospital?
- The important point is that I really want to know what you think, so it does not matter even if the picture is not perfect and it will still be very special as you have drawn it
- Do not worry; this is not a test. I would want you to draw your ideas and then write about your ideas. If you need me to help, I will be here with you

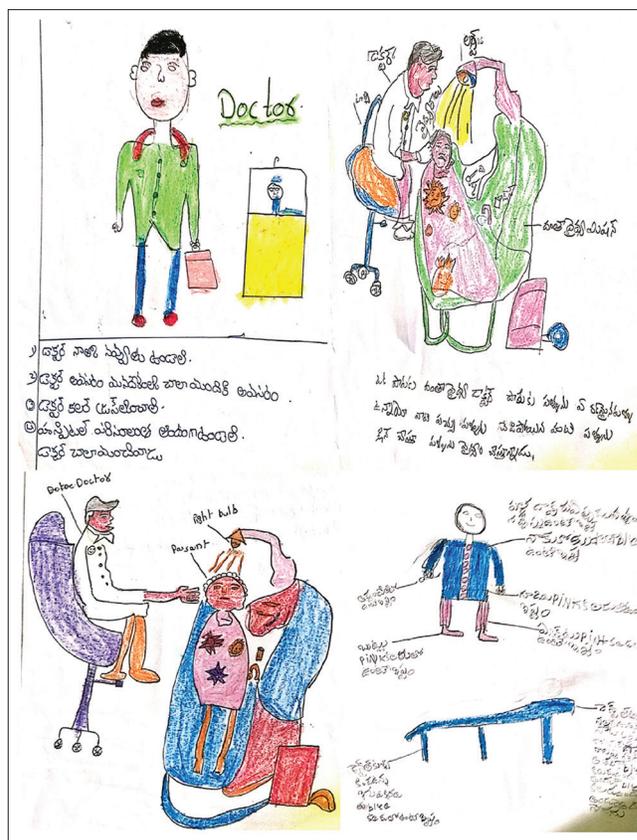


Figure 1: Sample of children's drawings.

- You have a sheet of paper, and on the front, you have a space to write your first name. If you could do that first
- I am really interested in your ideas, rather than how well you can draw or write
- If you would want me to write for you, just tell me what you want me to write and I will write down what you want me to communicate
- Thank you. We hope that you have enjoyed drawing and writing your story about children's dentists and dental setting.

Older children might just write a list of what they think, children's dentists should do, etc., on the reverse page of the instrument.

Precautions

We should make prompts only to make them draw pictures and write about them but never try to rub our own ideas onto them. Never draw comparisons of pictures drawn by children among themselves which can limit their participation. There could be a danger of child perceiving the researcher as an authority figure, which can create inherent imbalance in the relationship between the researcher and the child.^[10]

The primary outcome measures were description and analysis of those attributes which children believe that pediatric dentists of the future should possess and of those factors which inhibit or enhance childhood dental care.

Table 1: Themes/views obtained from children

Sample 1	Sample 2	Sample 3	Sample 4
Dentist should provide pain-free treatment	Hospital should be clean	Dentist should wear blue apron	Should provide pain-free treatment
Dentist should be smiling	Dentist should wear blue apron	Television should be present in hospital	A play area with video games should be present in the hospital
Dentist should be attentive	Injection should be painless	Dentist should look good	Dentist should wear colorful apron
Dentist should play with me	Treatment should be pain-free	Dentist should talk to us nicely	Dentist should avoid using injections
Dentist did talk with my parents regarding my treatment	Dentist should talk nicely	Dentist should provide either pain-free treatment or free treatment	Dental chair should be in blue

RESULTS

Data analysis was done using Riley's technique (1996) of coding data through the use of colored highlighter pens to identify common themes (views). The following is the list of few views/themes [Table 1] emerged from the present study, from which common themes coded and presented as results:

Common themes coded and emerged from the analysis were as follows.

- Communication – Empathy
- Professional competence – Painless injection
- Professional appearance – White coat anxiety
- Environment – Play area.

DISCUSSION

Although there are few scales for rating behavior and attitude toward the behavior guidance techniques, there is no tool to measure children's attitude toward dentistry. This write-and-draw technique acts as a good tool for that purpose with benefits of application in children for whom the topic of research might appear undescribable.

Alderson's seminal work for Barnardos has highlighted the necessity for researchers to conduct research with, rather than on, children. Critical appraisal of the write-and-draw technique highlighted the method as being useful in providing opportunities to capture the views of children on a variety of topics.^[2]

The draw and write technique, used in the present study, showed that white coat fear and fear of injection were observed among children as well as they expect a play area in the dental care setting. Themes emerged in the present study were consistent with the findings of other studies.

Playing was known to minimize the waiting time and change the behavior of children positively.^[14] Children in the present study expected play area in dental clinic. This finding was consistent with a study in which most of the participants chose playing in the dental waiting area.^[15] One of the findings of present is that there is lack of communication of dentists with the children and their relying on the opinions of parents than children, which could be improved by playing, as it was known to improve communication process among children, parents, and professionals and thus contribute to improve the care delivery.^[16]

Children in the present study preferred colored attire to white coat. It was consistent with a study which showed that 69.9% of the anxious children preferred colored attire,^[17] whereas another study reported that 90% of the children preferred dentist to wear white coat;^[3] however, dental anxiety was not an area of the present study. Recent evidence suggests that formal attire was suggested as more appropriate for anxious children.^[18]

Children in the present study reported that they expect pain-free injection. Findings from another study suggested that one of the most feared items for children in dentistry was injections.^[19]

This write-and-draw technique can also explore parents' socioeconomic status, dental health education levels, dental health awareness, as well as the need for dental health promotion, as the "Article 12 of the UN Rights Convention for Children states that the child's right to freely express his or her views and to have those views duly taken into account without discrimination; in particular, the right to be heard in judicial and administrative procedures affecting the child."^[20]

CONCLUSION

Write-and-draw technique can be effectively applied as a tool to identify the opinions of children regarding pediatric dentistry and dental operator. Further studies with large sample size are needed to explore the opinions of children so that higher number of themes could be evolved which could enhance the pediatric dentistry.

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Conflicts of interest

There are no conflicts of interest.

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