MSW Child Welfare Faculty Attitudes, Perceptions and Knowledge of Pediatric Dental Neglect

by

Katheryn Goldman

DISSERTATION

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Abstract

The Master of Social Work curriculum provides foundational knowledge for the social work profession. Social workers are essential professionals in identifying and managing cases of child maltreatment as well as advocating for vulnerable populations such as children. Little is currently known about the extent to which dental neglect is incorporated into child welfare curricula in social work programs. This study aimed to examine the attitudes, perceptions and knowledge of educators teaching Master of Social Work child welfare courses toward pediatric dental neglect. The study employed a quantitative cross-sectional descriptive design with four open-ended questions. The data was gathered using a purposive sampling method via a perception-based survey sent to 306 United States-based programs. The quantitative data were analyzed in STATA using hierarchical linear modeling and descriptive statistics. The qualitative data were analyzed whereby meanings formulated through participant responses were manually clustered into themes. When controlling for experience as a child welfare supervisor, gender, years of educating in child welfare, and frequency of dental neglect in the child welfare curriculum, the odds of investigation response for medical neglect and dental neglect decreased significantly by 98% compared to physical abuse. The random effects parameters of the identification and seriousness models demonstrated the least agreement between participant scores of physical abuse and dental neglect when compared to the other forms of child maltreatment. Dental neglect also had the lowest mean scores of identification and seriousness and the highest standard deviations in scoring. A variability in rationale of the action taken for dental neglect was also noted in the qualitative data. While all participants generally noted the child maltreatment vignettes as serious and as constituting child maltreatment, dental neglect was seen as significantly less serious and less distinctly a form of child maltreatment.

Keywords: child protection, dental neglect, child neglect, graduate education

Table of Contents

The committee for this doctoral dissertation proposal consisted of:

Advisor's Name: Charles Auerbach, Ph.D., M.S.W.

Committee Member: Daniel Pollack, J.D., M.S.W.

Committee Member: Christine Vyshedsky, Ph.D., L.C.S.W.

Committee Member: Keri Discepolo, D.D.S., M.P.H.

Section 1: Dissertation Overview

This study examined the attitudes, perceptions and knowledge of educators teaching Master of Social Work (MSW) child welfare courses toward pediatric dental neglect. The specific aims of this study were to understand MSW child welfare educators' (i) perceived knowledge levels surrounding pediatric dental neglect, (ii) perceived experience levels surrounding managing cases of pediatric dental neglect, (iii) perceived comfort levels surrounding identifying cases of pediatric dental neglect, (iv) perceived level of risk of dental neglect in comparison with other forms of child maltreatment, (v) perceived level of importance of incorporating dental neglect into the MSW curriculum, and (vi) differences in current MSW child welfare educators' proposed level of action for dental neglect compared with other forms of child maltreatment.

This study was quantitative, with the inclusion of four open-ended questions. The study employed a descriptive cross-sectional design. As defined by Aggarwal and Ranganathan (2019), this design describes the distribution of one or more variables without regard to a causal hypothesis and collects information on the presence of the level of one or more variables of interest as they exist in a defined population at a particular time. The data was gathered using a purposive sampling method via a perception-based survey. The quantitative data were analyzed using STATA through descriptive statistics and hierarchical linear modeling. The qualitative data were analyzed whereby meanings formulated through participant responses were manually clustered into themes, allowing for the development of common themes across participants.

Master of Social Work (MSW) programs were identified using the Council on Social Work Education website. MSW programs were selected as the target demographic of educators due to MSW students' likely subsequent attainment of licensure and work in child-serving

systems, increasing the need for strong foundational child welfare knowledge. MSW-level social workers are also likely to move on to supervisory roles, impacting the training of other workers. The program faculty was contacted by the Dean of Wurzweiler School of Social, as well as on an individual basis. Only US-based programs that were fully accredited at the start of the research were considered (306 programs). Faculty teaching child welfare at the MSW level were identified via the program website or an identified institutional or child welfare faculty member. Only faculty who were currently on staff at the time of data collection participated in this study. Additionally, an NASW community board along with the Title IV-E email list-serv were utilized to obtain data.

The principle of Social Welfare (6.01) of the NASW Codes of Ethics was relevant to the proposed research as social workers have the duty to advocate and promote social justice, particularly for vulnerable populations such as children. In better preparing future child welfare workers and social work professionals to identify and differentiate intentional cases of dental neglect from cases occurring due to social circumstances, we can better protect children from child maltreatment as well as mitigate systemically discriminatory patterns of referral and child welfare interactions amongst low socioeconomic status and racial minority groups who may have poor dental outcomes due to lack of resources.

Researching dental neglect is significant since dental caries (dental decay) is considered the most common chronic illness in childhood (Mouradian et al., 2000). With a high number of children affected annually, it is imperative to understand when the disease outcome is a result of dental neglect. To date, virtually no literature surrounding the education of non-dental professionals working in child welfare about dental neglect exists. Additional research is

required to ensure that social work educators are appropriately preparing the next generation of child welfare workers to identify and manage dental neglect.

The MSW curriculum provides foundational knowledge for the social work profession. Social workers are essential professionals in identifying and managing cases of child maltreatment as well as advocating for vulnerable populations such as children. Those working in child welfare, as well as all social workers who interact with children, need to be well-versed in the signs of child maltreatment, which includes dental neglect. MSW-level child welfare educators are in the position to ensure new social workers will have the appropriate tools to identify signs of dental neglect in practice. The study identified gaps in values and knowledge in social work training and provides insight into how MSW curricula can better incorporate content on dental neglect.

Section 2: Study Problem

An Introduction to Child Neglect

Neglect is both the most common and deadliest form of child maltreatment (Hornor, 2014). It is reported that in the federal fiscal year of 2020, 76.1% of child maltreatment victims experienced neglect (U.S. Department of Health & Human Services, 2022). Unlike other forms of child abuse, physical markers of neglect may be more difficult to detect.

A universal scientific definition of neglect has not been defined (Dubowitz et al., 2022). This is in part because professions have different approaches to neglect. For example, a pediatrician may be concerned with a child not meeting developmental targets due to a lack of proper nutrition, whereas an attorney may be focused on criminal behaviors by the caregiver. United States jurisdictions vary widely in their legal definitions of child neglect (Dubowitz et al., 2022).

Child Welfare Information Gateway (2018) identifies five main types of neglect: physical, inadequate supervision, emotional, educational and medical. Medical neglect refers to delaying or denying recommended health care for the child. Dental neglect is not identified as a specific form of neglect; however, it presumably falls into the category of medical neglect, even though medical and dental care are seen as disparate entities in the United States with separate clinical training.

An Introduction to Dental Neglect

Surprisingly, dental caries (dental decay) is the most common chronic illness in childhood (Mouradian et al., 2000). In fact, approximately 20% of children aged five to 11 have at least one untreated decayed tooth (Centers for Disease Control, 2021). While dental caries is common among children, there is a paucity of research that can aid in the precise clinical

distinctions between caries and neglect (Bhatia et al., 2014). While dental neglect is not strictly clinically defined, indications of dental neglect may include attending emergency toothache appointments only and failing to attend follow-up appointments, as well as multiple repeat dental general anesthesia procedures (Balmer et al., 2010).

The American Academy of Pediatric Dentistry defines dental neglect as "willful failure of parent or guardian to seek and follow through with treatment necessary to ensure a level of oral health essential for adequate function and freedom from pain and infection" (AAPD, 2020, p.16). There is no precise definition as to how many teeth, and the extent to which the teeth are affected by dental caries, qualifies as dental neglect (Hartung et al., 2019). Efforts to create standardized measurement tools have been forthcoming. In 1996, Thomson et al. created a seven-item scale based on behavior and attitude toward oral health (Kiatipi et al. 2021). The scale asked parents to rate their children's dental care performance with higher scores relating to higher levels of dental neglect in the past two years. However, in practice, this scale is not commonly utilized and is impractical, given that the potential perpetrator is being asked to assist in leading to the identification of neglect.

Characteristics of, and Risk Factors for, Dental Neglect

General characteristics of dental neglect include oral manifestations of the disease and disease history, social determinants that may affect access to care, and the characteristics of parents or caregivers (Ramazani, 2014). Oral manifestations include visually untreated cavities that can be detected by a lay person or non-dental health professional (Ramazani, 2014). In addition, dental neglect may also include failure to treat known dental trauma (Spiller et al., 2020). Pediatric dental neglect can be broken into active neglect, which is the intentional failure of parents or guardians to fulfill caregiving responsibilities, and passive neglect, which is an

unintentional failure of parents or guardians to fulfill their caregiving responsibilities due to a lack of knowledge, infirmity, finance, lack of awareness or availability of community support and resources (Gaur et al., 2018). Dental neglect can be further classified into prevention neglect and treatment neglect. Prevention neglect refers to neglect of the prevention of oral diseases. However, dental treatment neglect refers to the neglect of necessary dental treatment that results in the experience of untreated dental needs (Gaur et al., 2018).

As previously noted, social determinants of health can be a contributing factor to untreated dental caries. Family socioeconomic status is a well-documented factor affecting oral health (Ramazani, 2014). The CDC (2021) states that children from low-income households have untreated caries in their primary teeth at a rate of approximately three times the percent of children from higher-income households. Even if a child is eligible for Medicaid services, eligibility does not directly translate to obtaining care. Only one in five children who are covered by Medicaid services receive preventive oral health care, even though they are eligible (Mouradian et al., 2000). It is important to note the connection between being of low socioeconomic status, having higher rates of dental caries, and risk for interaction with child welfare. Research has found that physicians have a greater willingness to consider abuse as a potential cause of injury in children with low SES (Laskey et al., 2012). As a result, children with low SES have a higher likelihood of interacting with child-welfare systems. Therefore, it is imperative to establish a distinction in suspected cases of dental neglect between those caused by the lack of resources versus intentional neglect.

As with economic status, disparities are also found in dental caries by race. Based on data from 2011–2016, for children ages two to five years, 33% of Mexican American and 28% of non-Hispanic Black children had a history of dental caries in their primary teeth, compared to

18% of non-Hispanic White children (CDC, 2021). Additionally, children of racial minority background are at higher risk for interacting with child welfare services. Research indicates that Black youth are also over-represented in the child-welfare system (Cénat et al., 2021). To avoid perpetuating discriminatory trends in child-welfare referrals, it is crucial to evaluate the social factors that may contribute to a child's oral health status to identify true cases of dental neglect.

Dental Neglect and Child Abuse

Pediatric dental neglect may occur in isolation but may also be an indicator of greater child maltreatment (Welbury et al., 2016). Bite marks, perioral and intraoral injuries, as well as sexually transmitted diseases may be indicative of wider child abuse or neglect (Kellogg & Committee on Child Abuse and Neglect, 2005). The oral cavity may serve as a window into the child's overall well-being. For example, abused children have higher levels of untreated dental diseases, including dental neglect than their non-abused peers (Amini et al., 2019). Additionally, most cases of tooth injuries due to physical abuse or falls occur in children ages one to three years and can affect both the hard and soft tissues of the mouth. Further, this young population is unlikely to be able to articulate the etiology of their injuries (Kiatipi et al., 2021).

The oral cavity can also serve as a predictor of child maltreatment. Smitt et al. (2017) note the strong association between severe dental caries and child abuse and neglect. While generalized neglect may be difficult to detect in a measurable or observable manner, dental neglect can be visualized clinically.

Barriers to Dental Care

Barriers to obtaining dental care may include dental anxiety of the parent or child, financial costs, perception of need, cultural and religious factors, and lack of access (Freeman, 1999; Kiatipi et al. 2021). While failure and delay in seeking dental care have been observed in

the research, differentiating the prevalence of dental caries from dental neglect is extremely difficult (Bhatia et al., 2014). Mukhari-Baloyi et al. (2021) state that the lack of follow-up care may be a matter of perspective, or rather, parents may consider acute medical conditions as urgent compared to those issues related to dental pain and conditions. Families may also attempt home remedies and medications, which may delay care in these instances (Mukhari-Baloyi et al., 2021). While parents and guardians may not realize the importance of follow-up and consistency of care utilization, they may have larger social issues occurring, such as putting food on the table, which may override the child's dental needs.

Consequences of Dental Neglect

While dental neglect may go unnoticed, it can result in significant consequences for a child. Children who suffer from dental neglect may experience pain, issues with eating, infection, loss of function and sleep, poor appearance, low-weight, poor school performance, low self-esteem, and poor quality of life (Ramazani, 2014). These factors can thereby lead to poor nutrition, suboptimal learning outcomes, and subnormal growth and development (Costacurta et al., 2015). Additionally, dental decay can be a contributing etiologic agent in failure to thrive, a condition whereby children with very low weight for their age and height do not maintain an appropriate growth pattern (Elice & Fields,1990; Homan, 2016). Confirming this finding, Sheiham (2006) found that children with severe dental caries had a more rapid weight gain and improvement in quality of life once their teeth were restored.

The Caregiver's Role in Dental Neglect

Although the effects are well known in the literature, it is imperative to ensure that the child's guardian understands the potential risks of failure to treat dental caries. This process is known as informed consent, whereby the parent is given information to understand the risks and

benefits of treatment or lack thereof. Bross (2004) notes, “When a parent is consenting on behalf of a child, the standard to consider is ‘what would reasonable parents in the same or similar situation want to know about the risks and benefits to their child before consenting to care’” (p. 126). Sometimes, even after appropriate informed consent has been given, some children do not receive optimal or any care as the parent or guardian does not agree to the proposed care (Bross, 2004). In each child-specific scenario, the provider must assess the idea of parental autonomy versus intentional neglect and the ethical consideration for the child’s well-being.

Fisher-Owens et al. (2017), through the American Academy of Pediatrics, state, “If parents fail to obtain therapy after barriers to care have been addressed, the case should be reported to the appropriate child protective services agency” (p. 281). The strength of the report relies heavily on not only the appropriate background knowledge given by the provider but also the information collected by the caseworker who will need to pass the information to the appropriate reviewers. Protocols and procedures need to be designed to alert the appropriate authorities that a potential dental neglect situation may be occurring. The establishment of effective strategies for the prevention and treatment of dental neglect and subsequent associated health risk will only be achieved with inclusive comprehensive public and government support (Hartung et al., 2019).

Legal Framework, Policy, Surrounding Dental Neglect

Burgette et al. (2020) performed an inter-jurisdictional comparison of statutes and regulations involving the reporting of child dental neglect by dentists. The study identified child neglect laws in 51 jurisdictions in the time frame of March 2018, which included all states and the District of Columbia. The study found that all jurisdictions had child neglect laws, but only

eight specified failure to seek dental treatment as child neglect, and none adopted the American Academy of Pediatric Dentistry's definition of dental neglect.

Despite its potentially detrimental health consequences, dental neglect is rarely an isolated issue that leads to its own child protection referral (Bradbury-Jones et al., 2013). Only a minute number of states have instituted mandated dental screening laws for school entry, amongst which the criteria and guidelines vary significantly (Fleming, 2019). Between 2008-2019, three states (South Carolina, Utah, and West Virginia) passed dental screening laws, bringing the number of states with such laws as of 2019 to 14, plus the District of Columbia, with efforts in two more states (Connecticut and Massachusetts) under process. A majority of states do not have any dental screening laws, and even states which have adopted mandated dental screening laws have reported difficulty in enforcing these laws.

Challenges to Identifying Dental Neglect in Healthcare Settings

Larger hospitals have more access to social workers as normative members of the healthcare team, and therefore, can better meet the social needs of families. However, many children in the United States acquire their medical and dental care in private offices where providers do not have regular knowledge of, or interactions with, child welfare systems. Moreover, children may transition from office to office without the ability of a provider to prove that the child's guardian has made reasonable accommodations to seek care, or, failed to do so. While primary care providers may be able to identify signs of dental disease, appropriate treatment still must be conducted by a dental provider, which requires families to present to a dental provider and follow through with treatment recommendations. The referring primary provider may not know whether dental care was received.

To improve the identification of dental neglect by providers, Brown et al. (2022) developed a local trust policy that aims to protect children undergoing treatment for general anesthesia for dental extractions in an oral and maxillofacial surgery department who may be at risk of dental neglect. This policy may be utilized as a model policy for providers to identify cases of dental neglect. The policy works to identify those children who are at the highest risk of dental neglect and provides a pathway for information sharing with community services (Brown et al., 2022). The authors developed criteria to determine if a child requires a referral to a Pediatric Liaison, including (i) if the child is age six or older and is undergoing removal of six or more teeth, (ii) if the child is aged five and under undergoing removal of four or more teeth, (iii) children who are undergoing a second general anesthetic procedure in their lifetime for removal of at least two or more decayed teeth, (iv) children currently on a child protection plan/looked-after child undergoing removal of one or more decayed teeth, and (v) failure to attend two consultations or operations. This list excludes children who are undergoing extraction of healthy teeth or teeth with developmental defects. If the child meets the criteria for referral, the referral is discussed with the parents, and consent is obtained to share relevant information (Brown et al., 2022). However, these safeguarding procedures are less common in generalized practice.

Jameson (2016) notes that outside of dentistry, healthcare providers and other agencies such as social institutions are often unaware of a child's dental disease and how it may impact the child's wellbeing and health. Welbury (2014) further demonstrates that many pediatricians involved in child abuse cases are required to carry out oral examinations without specialized training in the oral cavity or support from dental colleagues. For high-risk children with the potential for interacting with the child welfare system, especially those without a usual source of

dental care, a pediatric medical visit may be their only contact with any health provider (Finlayson et al, 2018).

Negro et al. (2019) sought to evaluate the feasibility of social worker-delivered oral health interventions for preschoolers in foster care. Participants were knowledgeable of the consequences of untreated tooth decay; however, despite their understanding of the issue, most respondents lacked confidence in their ability to identify tooth decay. Participants noted that before entering foster care, most children did not have a history of visiting the dentist due to financial barriers and a lack of providers who accept Medicaid. All participants agreed that tooth decay was a problem serious enough to justify social workers-driven interventions; however, barriers to home-based programs during home visits implied that oral health was a low priority and may not be as feasible with a high caseload.

Dentists are mandated by law to report suspected cases of child maltreatment and are granted immunity for reports made in good faith (Singh & Lehl, 2020). While it is both an ethical and legal mandate for dentists to report instances of dental neglect, Amini et al. (2019) state that oftentimes, social services may fail to affect dental care immediately if more pressing issues have not been resolved. The authors allude to the idea that dental neglect may be seen as of secondary importance in the way cases of pediatric dental neglect are prioritized by the case workers. Stokes and Taylor's (2014) survey of social workers found that social service provision and contact hours were lower in cases attributed to neglect as compared to cases of physical or sexual abuse. The number would be likely even lower for cases of dental neglect. It is significant to note that in the latest publication of *Child Protective Services: A Guide for Caseworkers* in 2018, the concept of dental neglect was only mentioned twice. This fact highlights that while

there is much focus on the training and knowledge of dentists in identifying and managing cases of dental neglect, there is less of a focus on the reciprocal to social workers.

Incorporating Dental Neglect into Child Welfare Curricula

While child welfare training exists in social work programs, the extent to which dental neglect is incorporated into the curriculum remains unclear. Title IV-E partnerships between social work educational institutions and state public child welfare agencies seek to improve the skill level of the workforce and allow for the retention of child welfare workers (Deglau et al., 2018). As part of the Social Security Act, Title IV-E provides federal funding to facilitate programming for children in the child welfare system (Newell & Bounds, 2020). The two components of Title IV-E agency/university partnerships are the placement of students into public child welfare agencies as their capstone field education experience and professional development, continuing education, and training of current child welfare workers (Newell & Bounds, 2020). Bertram et al. (2020) note that specifically denoted child welfare field instructors invest more time into this type of traineeship than they would in a more typical MSW field placement. Therefore, one might expect detailed child welfare training in these programs. Title IV-E agency/university partnerships, as well as child welfare educational courses in the MSW curriculum, provide foundational knowledge through which students can identify and analyze cases of child abuse and neglect.

Sobeck et al. (2022) indicate that field education is also a significant component of the social work curriculum that can provide students with real job exposure to the field of child welfare. Students can intern at public and private agencies and gain exposure to differences in worksite protocols, policies, programming, worker competency and evaluations, and the macro-micro continuum of service delivery. These experiences prepare students for clinical experience

in child welfare and may present a strong opportunity to prepare students to evaluate and identify dental neglect amongst other forms of child maltreatment, in a supervised setting. Both didactic and field placement educational programs at the MSW level in child welfare provide a starting point to understand the extent to which social workers are exposed to foundational knowledge and training, surrounding identifying and managing cases of pediatric dental neglect. However, little is currently known about the extent to which dental neglect is incorporated into child welfare curricula in social work programs.

Section 3: Literature Review

The literature demonstrates that there is a paucity of information surrounding dental neglect, and even less on the role of social work and its involvement in identifying, managing, and providing interventions for cases of dental neglect. The review will help to identify what is already known about dental neglect, the intersectionality of child welfare and dental neglect and research encompassing child welfare education. In addition, a survey of the literature will help to identify gaps in knowledge and provide justification for the merit of the proposed research topic.

Methodology

Literature was searched utilizing Google Scholar, and articles were accessed through the Yeshiva and NYU library databases. Search terms included, but were not limited to, "pediatric dental neglect," "child dental neglect," and "consequences of dental neglect." Due to the limited data in the field, no temporal restrictions were placed; however, the literature was reviewed for relevance to the study topic. To obtain literature regarding child welfare education, search terms included but were not limited to "dental neglect and child welfare education" and "dental neglect and social work education." As these terms did not provide associated literature, alternate terms were utilized, including "child welfare education of MSW students" and "Title IV-E education." Articles were then selected that evaluated training and practice in child welfare education that may be pertinent to the implementation of knowledge and training of pediatric dental neglect, even if they did not necessarily mention pediatric dental neglect directly.

Findings

The following section reviews the pertinent literature in the discussion of pediatric dental neglect. It is important to note dental neglect is often utilized interchangeably with untreated dental disease and does not consider caregiver intent. Studies that focused on dental neglect as a

lack of oral health care were not included unless they were specifically connected to other forms of child maltreatment. The subsections of the literature review were grouped based on thematic similarities and informational trends within the existing literature. The first section details how articles were searched and selected. The second section reviews dental and orofacial aspects of neglect in children. The third section discusses defining dental neglect. The subsequent section delves into the risk factors for dental neglect. The fourth section reviews the literature surrounding the characteristics and risk factors of dental neglect. The next two sections discuss literature involving perceptions, knowledge and attitudes of dental providers and non-dental providers specifically about pediatric dental neglect. The literature review then ends with a section on child welfare training in social work higher education, followed by a summary of the findings of this chapter.

Oral Features of Children Facing Neglect

This section of the review focuses primarily on literature that identifies orofacial connections to general child neglect. Some articles were included that also included child maltreatment that incorporated neglect. Articles relating directly to physical and sexual abuse specifically were not included since the study is focused on neglect.

Barbi et al. (2021) conducted a study to evaluate the orofacial features of children suspected to be victims of child abuse/neglect in the Indian subpopulation. The study evaluated 250 children who attended the outpatient department, were between the ages of five and 16 years, and were suspected to be victims of child abuse and neglect. A dentist evaluated the patients for laceration, avulsion, dentoalveolar fractures, decayed, missing teeth, and calculus deposits. The researchers found that 30% of the children presented with some form of laceration, 29% exhibited features of avulsion, 41.6% presented with dental caries, 7.6% presented with

missing teeth and all candidates demonstrated calculus deposits (Barbi et al., 2021). The study highlights the connection between generalized child abuse and neglect and subsequent orofacial manifestations. However, the study evaluates these orofacial features as a component of broader child abuse and neglect, as opposed to evaluating these factors as a form of dental neglect specifically.

Similarly, Bradbury-Jones et al. (2021) conducted an international scoping review of research related to the relationship between child maltreatment and oral health. The researchers first conducted exploratory searches which refined the inclusion criteria to papers that reported on empirical studies and literature reviews. The study team consisted of four researcher-academics who had experience in clinical nursing, public health nursing and midwifery, dentistry, and child protection social work. The databases searched included Web of Science, ProQuest Nursing and Allied Health, Medline and Cinahl Plus. There was no time-period set for publication and only papers in English were considered. The scoping review identified 68 papers and analyzed and identified three main themes in the literature. First, the researchers found a relationship between poor oral health and child maltreatment that is well supported by evidence, but as a concept is poorly developed. Second, the researchers identified discrepancies between the knowledge of dental team members about child maltreatment and their comfort and ability to identify and report concerns to child protection. Finally, the researchers noted areas of local-level policy and practice development that sought to improve the connection between dentists and health and social practitioners. However, the study noted that there is evidence to suggest that vulnerable children continue to fall under the radar of interdisciplinary systems (Bradbury-Jones et al., 2021). The study evaluates compelling points regarding issues surrounding gaps in communication between dentistry and other child professionals as well as gaps in knowledge and

practice between dentists reporting cases of child abuse and neglect and provides evidence for the need for future exploration of this area.

Another study conducted by Karst et al. (2022) sought to determine if dentofacial infections can be utilized as an indicator of general neglect. All children ages 16 and under who were admitted for surgical incision and drainage due to dentofacial infection between January 2017 and January 2019 at King‘s College Hospital were examined retrospectively. All cases were discussed with a local safeguarding team or authority to establish whether the child was previously known to social services. The study revealed that 48% of the children admitted with dentofacial infection were already known to social services and 2% had been recently referred. The study found that 50% of the children were ages five to eight, indicating an increased risk of neglect in this age group (Karst et al., 2022). This study is suggestive of a relationship between dental and generalized neglect and highlights the importance of interprofessional cross-training in identifying both oral and physical symptoms

Like Karst et al. (2022), Montecchi et al., (2009) hypothesized that dental neglect is related to other types of neglect. The study utilized a comparison between a group of children with a psychological disorder and a control group to evaluate dental health. The study found that abused children had a significantly higher dental plaque, higher gingival inflammation, and significantly higher untreated decay. Children with a history of abuse also had a more difficult time cooperating for dental treatment. While this study importantly draws the link between oral health and other types of neglect, it does not evaluate dental neglect in isolation.

In conjunction, Kvist et al. (2018) aimed to assess oral health and oral health behaviors concerning suspected child abuse and neglect among children who have been reported to Swedish Social services and for whom an investigation has been initiated. The study defined

child abuse and neglect as physical abuse, psychological abuse, intimate partner violence, sexual abuse, and neglect. Data were obtained from Social Services and dental records from a sample of 86 children and 172 matched controls. The researchers found that children in the study group had a higher prevalence of dental caries than the control. For the study group, the levels of non-attendance and dental avoidance were high as well as parental failure to promote good oral health. Prevalence of dental caries in primary teeth, fillings in permanent teeth, dental health service avoidance and referral to a specialist in a pediatric dental clinic demonstrated a high probability of being investigated for suspected child abuse and neglect. This cumulative probability of being investigated was 0.918. Kvist et al. (2018) demonstrate that issues in oral health and factors linked to dental neglect may also be linked to suspected child abuse and neglect. However, the concept of dental neglect is not specifically addressed in isolation in this portion of the research, although it is mentioned in an additional study mentioned later in this review.

Finally, Jenkins et al. (2018) conducted a study evaluating the link between dental caries and child neglect in children presenting to the emergency department. The researchers reviewed medical records within the Pediatric Emergency Department at Sunderland Royal Hospital. The aim was to determine if children or young people had neglect as a contributory factor when a child or young person presented to triage with an issue relating to the oral cavity. 36 clinical records were identified, which consisted of 35 patients with one patient who attended twice with the same condition within 15 days. The patients ranged in age from two months to 15 years and nine months. The researchers noted that 67% of the patients had documentation indicating that they had seen a dentist with only 6% with documentation that the child regularly saw a dentist. However, the documentation was nondescript, meaning that if the patient mentioned that they

had seen a dentist, it was recorded as positive. 47% of patients had some form of documentation indicating a general appraisal of the oral cavity. The study also found that 89% of service users had recorded evidence of a discussion as to how to access further treatment. Of the cases with applicable child safeguarding concerns, 13% had concerns documented, one case was referred to social services, and one case had a child protection plan in place. Moreover, the social worker was informed of the additional concerns raised (Jenkins et al., 2018). The study demonstrated that there may be discrepancies in the documentation of dental neglect when a child presents for emergency services. Even with a small number of applicable cases, the study denotes the importance of documentation in the ability to identify and refer cases of pediatric dental neglect.

Defining Dental Neglect in the Literature

As the subject of dental neglect has limited associated literature, literature reviews on the subject help to identify what is known and highlight areas where knowledge is lacking. Bhatia et al. (2014) conducted a systematic review of the literature that aimed to identify features of oral neglect in children. Initially, 15 databases in all languages were searched using a search strategy of OVID Medline databases using keywords and Medical Subject Headings (MeSH headings) and were subsequently modified to search the remaining bibliographic databases. The search strategy was supplemented by a range of 'snowballing' techniques, including consultation with subject experts and searching selected websites, non-indexed journals and the references of all full-text articles, and through the supplemental method identifying four specialist journals, five websites and references of full texts. Inclusion criteria involved studies of children ages 0–18 years with confirmed oral neglect undergoing a standardized dental examination. All relevant students underwent two independent reviews by individuals on a panel of 22 reviewers who were trained in critical appraisal. The panel comprised of community and pediatric dentists,

pediatricians, child protection practitioners, a lecturer in dental public health, a social worker and a pathologist. A third review was conducted by the principal investigator as a means of resolving any disagreement between the original two reviewers. Of the potential 3,863 articles that were screened, 83 studies were reviewed, and only nine were included. Features of dental neglect that were noted included: (i) failure or delay in seeking dental treatment, (ii) failure to comply with and/or complete treatment, (iii) failure to provide basic oral care, (iv) co-existent adverse impact on the child such as pain and swelling. In addition, two of the studies developed and implemented screening tools for dental neglect with success **(**Bhatia et al., 2014). While the study identifies factors associated with dental neglect, the criteria is vague.

Similarly, Katner et al. (2016) reviewed dental literature using a PubMed search for the term "child dental neglect" for 21 years. They also studied individual state statutes to learn about the protection afforded by both victims of neglect and the healthcare providers who act on behalf of children. The researchers identified 112 articles, of which only 20 were on neglect, and half were published in international journals. The study found that 65 articles combined abuse with neglect and 27 were on the subject of abuse, which was not even in the term of search. The literature denoted that abuse is clearer cut and seen as more blatantly reprehensible, making it easier for dental professionals to feel they are ethically making reports. However, defining and identifying cases of pediatric dental neglect appeared to be more challenging. The authors found confusion surrounding what consisted of child neglect. The article is vague in its methodology and used child neglect and dental neglect interchangeably, which blurred any differentiation between them. However, the article highlights the lack of clarity in the definition of what constitutes dental neglect.

Finally, Baptista et al. (2017) sought to clarify the clinical indications for the identification of dental neglect in children in accordance with the scientific literature. The researchers performed a search in Pubmed, SCOPUS and Web of Science, using the keywords "child," "dental," and "neglect," between 1996 and 2016 using the Boolean operator "AND." The study included observational, or case-control descriptive articles written in English or Portuguese and only those that specifically addressed the topic of dental neglect in children. The results of the study found that not only does pediatric dental neglect require a clinical diagnosis and clinical history that depicts a lack of oral health, but also requires understanding of the social and parental determinants (Baptista et al., 2017). The study highlights that clinical diagnosis is insufficient to diagnose pediatric dental neglect as failure to follow through in care may be due to a lack of resources. It also highlights how the definition of dental neglect and clinical indicators are amorphous.

Risk Factors for Dental Neglect

The actual prevalence of dental neglect is poorly understood, and Khalid et al. (2021) sought to understand the prevalence of dental neglect worldwide and highlight possible associated risk factors. An associated systematic review was conducted utilizing PRISMA guidelines, which are evidence-based guidelines that serve as a minimum set of items required for reporting in the systematic review. PRISMA focuses on reporting reviews that focus on the effects of interventions. Studies of children and adolescents of 0–19 years of age were included. Mainly MEDLINE, PsycINFO, PubMed, Web of sciences, and CINAHL were searched with a secondary search reference list of the included studies, identified literature reviews, and Grey literature using Google Scholar. The search was conducted by utilizing the keywords "oral neglect," "dental neglect," "neglected dentition," "untreated caries," "missing dental

appointments," "repeated oral infection," "children," "teenager," "adolescent," "toddler," "infant," and "pediatric patient" combined with the logic operators (OR) and (AND). The search was inclusive of all languages and included literature from January 1946 to January 14, 2020.

The study found ten primary studies of which dental neglect or indicators of dental neglect were examined. The prevalence of dental neglect after removing outliers ranged from 34 to 56%. The study found that parents' educational level, occupation, maternal dental anxiety, the parent's attitude toward primary dentition, an irregular visit to a dentist, being a "looked-after" child (LAC), and having single parent were statistically significant risk factors for dental neglect (Khalid et al., 2021). Additionally, refugee populations, immigration background of parents, children living in an underprivileged area, parents' low socio-economic status, high cost of dental treatment, and low pediatric population were the positive significant risk factors for dental neglect in all the included studies (Khalid et al., 2021). The study both estimates a prevalence of dental neglect and provides potential risk factors for dental neglect based on the literature. However, the study utilizes dental neglect generally almost in equivalence with poor oral health and does not clearly delve into the idea of intent.

Additionally, Manavazhagan et al. (2016) conducted a systematic search of the literature for case reports of pediatric dental neglect using PubMed Database and Medical Subject headings using the keywords "Dental neglect in India." Through this search, the researchers found nine articles. The researchers noted that in most of the case reports pediatric dental neglect was due to parental negligence. The researchers subsequently found that the negligence was due to the parental belief that the teeth are only primary teeth, and therefore, did not need to be saved (Manavazhagan et al., 2016). While the study is limited as the case reports originated only from

India and is limited in number, the study highlights parental health literacy as being a potential risk factor for dental neglect.

A clear clinical risk factor that may indicate dental neglect is facial swelling requiring hospital admission. Schlabe et al. (2018) conducted a retrospective audit of children under age 16 who were admitted under oral and maxillofacial surgery for incision and drainage of a dental/facial abscess, under general anesthesia, between 2015–2017, to evaluate if the patient had specifically experienced dental neglect. The researchers also sought to determine if the child had been known to Children‘s Social Services (SS) before hospital admission. The study included 27 children, 40% of whom were known to social services (Schlabe et al., 2018). The study demonstrates that dental neglect may be in conjunction with other forms of child maltreatment, as many of the children were already known to social services. However, the study does not indicate the capacity in which the children were known or if they were known for reasons associated with dental neglect.

Similarly, a study conducted by Al-Habsi et al. (2009) secondarily aimed to determine if pediatric patients who required treatment under general anesthesia for dental caries were on the child protection registry. From October 2004 to March 2005, children attending the pediatric clinic requiring general anesthesia and those who attended the pediatric casualty unit who resided in Camden and Islington Health Authority who attended the dental casualty unit of the EDH and day stay theaters at EDH and Middlesex Hospital were recruited to the study. Of the 220 children attending dental GA and casualty, only one child was found to be on the child protection registry (Al-Habsi et al., 2009). The study is limited in generalizability by its geographic specificity, but it draws to light that children who are at high risk for dental neglect,

requiring general anesthesia for extensive treatment, are not necessarily interacting with child welfare organizations.

While dental neglect may be intentional, intent can often be confused with a lack of resources. To affirm this distinction, Lourenço et al. (2013) aimed to answer the research question: how does caregiver neglect of children's oral health influence the children's oral health status within the geographic context of a city with a free and quality oral healthcare system? The study's overall design was a correlational research design that sought to identify the relationship between child oral health outcomes and dental caregiver neglect. The research design utilized five-year-old patients as the target demographic, since these patients have deciduous teeth and this age group is typically used as a reference group for caries epidemiological research. Additionally, the study assumed that all of the five-year-old children were born and raised in Pacoti, Brazil, and therefore, should hypothetically have had access to prevention and oral health services while growing up. Furthermore, by choosing the city of Pacoti, Brazil, the study attempted to control for families not having access to care, which is a driving factor for poor oral health outcomes. At five years of age, the child does not have the autonomy to access dental services, and therefore, is dependent on their caregivers. Presumably, the selected age demographic within this geographic context allowed for greater isolation of dental neglect as a cause for poor oral health outcomes (Lourenço et al., 2013). The first stage of the study collected quantitative data through physical examinations between September and December of 2010 from 149 five-year-old children of a total of 174 children in the municipality. The participating children underwent oral and physical exams via the SB Brasil Project (a national oral health epidemiological survey), and physical inspection, according to criteria of the Detection and Prevention of Child Abuse, a component of the Integrated Management of Childhood Illness

(IMCI). Only one trained examiner who was submitted to the intra-examiner calibration with kappa > 0.8 evaluated the children.

The second stage of the study utilized interviews, which collected both qualitative and quantitative data. These interviews were performed with caregivers of children who presented with extremely high and low numbers of decayed, missing (due to decay) and filled teeth through a semi-structured questionnaire assessing caregiver's perception with respect to the oral health of their children, risk factors for caries, suggestive signs of neglect and children's access to dental care. The study found a relationship between children's experience of dental caries and children's oral health perception by caregivers, as well as between children's experience of dental caries and access to dental care. The study also found that there was an association between caries experience and risk factors suggestive of neglect. The factors suggestive of neglect were vaguely defined. The authors, for example, state that a high number of caregivers reported not taking their child to the dentist because they thought it was unnecessary (Lourenço et al., 2013). One could argue that this description is not a risk for dental neglect as defined by the AAPD, which assumes intentional actions and is an educational deficit. In the study design, it was not adequately described what constituted caregiver actions and attitudes surrounding "dental neglect" and how these variables could be measured. The lack of definition left the study with convoluted results with respect to the relationship between caregiver neglect and oral health outcomes.

Perceptions Knowledge and Attitudes of Dental Providers About Pediatric Dental Neglect

While there is substantial literature surrounding attitudes and knowledge of dental practitioners regarding pediatric child abuse and neglect, there is oddly less literature that evaluates dental neglect specifically. Kvist et al. (2017) sought to investigate the prevalence and

characteristics of mandated reports made by dental professionals to social services regarding dental neglect. The researchers collected dental mandatory reports from one municipality in Sweden reported between 2008 and 2014. The data consisted of 147 reports made by dental professionals encompassing 111 children. The researchers found that the total prevalence of reports from dental care services to social services was 1.5 per 1000 children with a significant increase between 2008 to 2011. The researchers further found that the primary cause for the report concerned parental deficiencies in care and concern for dental neglect. Of the reports, 86% involved children who had already had contact with social services (Kvist et al., 2017). While the study is limited to Swedish Social Services, it does highlight the risk of children of dental neglect who had previous contact with social services, and the potential connection between generalized child abuse and neglect and dental neglect.

Harris et al. (2009) sought to answer how pediatric dentists manage cases of children with neglected dentition. An anonymous self-administered postal questionnaire was sent in March 2005, to all 789 members of the British Society of Paediatric Dentistry (BSPD). Participants were first asked to estimate the frequency at which they saw children with neglected dentition with six options ranging from ‘more than once a day’ to ‘once a year’. The respondents were subsequently asked how often they utilized the nine possible actions when following up with these children adapted from multi-agency child protection guidance. Responses included always, sometimes, rarely and never, as well as an additional free-text action option, ‘other, please specify.’ The study found that 81% of respondents saw children with neglected dentition once a week or more frequently, 59.9% reported daily or more often and only 6.6% reported seeing such children less frequently than one time a month. When managing children with dental neglect, 100% of respondents explained the concern to parents and gave advice on preventing

dental disease. 99.6% of respondents recorded findings, 98.9% treated pain and infection, 97.5% reviewed progress, and 90.1% set targets for improvement with this action being the least used. While 57.7% of respondents always or sometimes discussed the case with other healthcare professionals, only 7.4% made a child protection register inquiry and only 4.1% ever referred to social services. More registered specialists in pediatric dentistry compared to non-specialists and those who reported seeing children with neglected dentitions daily compared to those who saw dental neglect less often would undertake the three types of multi-agency communication: discuss with other health professionals, make a child protection registry inquiry, or refer to social services. While the study provided insightful information on how dentists manage dental neglect, the study did not supply a definition of dental neglect, utilizing the term neglected dentition, and instead allowed respondents to apply their own interpretation of dental neglect (Harris et al., 2009). In doing so, it is difficult to determine the true reporting of cases to child services that would be required based on dental neglect as a form of child maltreatment.

In conjunction, Hartung et al. (2019) completed a prospective clinical examination with ten dentists to identify challenges in the treatment of care of children facing suspicion of dental neglect. The practice of dental care in the cases of 102 children with suspected dental neglect was analyzed by collecting quantitative data in the form of questionnaires and qualitative data in the form of focus group interviews. The study utilized the dmft/DMFT-score (decayed missing due to caries and filled teeth), which has been established to detect caries status but does not hold an accepted threshold for dental neglect. A score considered above 4.5 is thought to represent poor oral health; hence, the study utilized a threshold of at least five untreated teeth (decayed (d/D), missing (m/M), and/or filled (f/F) teeth (t/T) because of caries or infection) regardless of the child's age to suspect dental neglect. Patients needed to be between the ages of three to 14

years. The quantitative portion encompassed two surveys. The first was pseudonymized with data regarding the participating dentist's demographic information as well as their experience and performance in the cases of suspicion of dental neglect which included estimated frequency of cases, procedures in the cases of dental neglect, frequency, and quality of contacts with youth welfare offices, feeling of adequate knowledge of dental neglect, awareness of supporting structures and contacts. The second questionnaire, which needed to be completed for every patient, gathered anonymized data regarding children with suspicion of dental neglect, their legal guardian's demographics, dental history and DMFT-score, dental findings, signs of general neglect, and procedure. The qualitative data collection consisted of focus group interviews to address dentists' personal experiences with cases of suspicion of dental neglect as well as barrier identification.

Of the 102 cases of suspected dental neglect observed during data collection from March 2015 to August 2016, 54.9% were boys and 45.1% were girls. The mean age of affected children was an average age of 6.6 years. For the suspected 61.8% of the children, they presented to the office for the first time most commonly for checkups and pain. Of the 63 patients, 62 had not undergone regular dental treatment in any previous practice. The study found that approximately 78% of children with suspicion of dental neglect did not undergo regular dental treatment before they presented findings that led to the diagnosis of suspected dental neglect. All 14 dentists had been faced with cases of suspected dental neglect in their professional careers and they all dealt with these cases in a similar manner, which included speaking to parents about oral health, correcting nutrition, addressing pain, discussing the long- and short-term sequela of care, and obtaining a regular oral health routine. If the oral hygiene remained poor, the dentists would refer to a specialist. The dentists surveyed identified two main pathways to barriers to dental care,

structural barriers, and barriers within families. Family barriers included the overburden of parents caused by more essential problems within the family structure and lack of parental motivation in oral health. The structural barriers included the lack of cooperation between dentists, pediatricians, public health offices and schools. Dentists felt insecure in the identification of general child neglect and noted that there was no designated contact person to whom they could reach out to obtain advice. Many dentists described a lack of knowledge regarding youth child welfare offices and German child protection law, as well as which cases of dental neglect should involve the youth welfare offices. In cases of general neglect, the dentists felt that the dental neglect status was assumed to be the lowest priority, and thus the dentists felt that their actions would not create an impact. The dentists felt that an incentive for successfully managing cases of dental neglect may motivate dentists to become more involved with these cases. The study also found that dentists reported inadequate training in dental neglect (Hartung et al., 2019). The study provides important insight into the start of quantifying what may constitute dental neglect. While it is limited in its generalizability due to the geographic specificity, the study identifies the themes of the perceived lack of value of dental neglect in cases of generalized neglect and the lack of knowledge of dentists working with child welfare systems.

In contrast to the studies mentioned in the previous sections, Brattabø et al. (2018) sought to explore the reasons that public health dental personnel (PDHP) send reports of concern of child maltreatment with concern for dental neglect, but also examine how child welfare services (CWS) respond to the reports made by PDHP. The study employed a cross-sectional design via an electronic survey that was distributed to public dental hygienists and dentists in Norway. The researchers sent out a questionnaire to 1,542 recipients with a response rate of 77.8%. The

participants reported that from 2012–2014, 42.5% of respondents sent a report to CWS with an average of 2.7 reports per respondent. Non-attendance at dental appointments and grave caries were reported most frequently as the reason for reports. Of the reports 24.5% resulted in measures being taken by CWS, 20.7% were dropped, and 29.4% lacked information from CWS on the outcome of the case. Brattabø et al. (2018) found that reports due to suspicion of sexual abuse, gross caries and suspicion of neglect had the highest association with the implementation of actions being taken by CSW. This study connected both reporting practices, as well as the added measure of the intersectionality between child welfare and dental health professionals to evaluate the outcomes of these reports by dental health professionals. It also highlights how effective communication and reporting criteria for dental neglect may assist in better collaboration with child welfare services.

Finally, Rønneberg et al. (2019) sought to explore whether general dental professionals have mutual collaboration and communication with Child Welfare Services (CWS) besides potential barriers to reporting child maltreatment. An electronic questionnaire was sent to all general dental professionals in Public Dental Health Service (PDHS) in Oslo, Norway n = 131. The survey obtained a response rate of 75%. The researchers found that 90% of general dental professionals had received requests from CWS to provide a child‘s dental chart. However, while 71% of GDPs reported child maltreatment, CWS only gave feedback in about 55% of cases. Uncertainty was the most common reason for not reporting, and utilizing guidelines increased the frequency of reporting with an OR of 3.6 (Rønneberg et al., 2019). The study highlights the importance of interdisciplinary communication among dental professionals and child welfare workers to facilitate effective, appropriate, and consistent reporting and follow-up practices.

Perceptions Knowledge and Attitudes of Non-Dental Providers of Dental Neglect

Dental neglect may also be identified by non-dental providers who are less accustomed to evaluating the oral cavity, and thus it is crucial to understand the literature surrounding other interdisciplinary team members' understanding of dental neglect. A study conducted by Bradbury-Jones et al. (2013) aimed to evaluate the role of public health nurses' assessment of oral health in preschool children as it relates to dental neglect in Scotland. The authors provided four specific research questions when attempting to understand the role of public health nursing and dental neglect: (1) how public health nurses assess oral health, (2) what the barriers to oral health assessment are, (3) what is the threshold of dental disease that indicates targeted public health support, and (4) what the factors are relating to dental neglect beyond which child protection intervention is initiated. The study utilized an exploratory lens through semi-structured one-on-one interviews conducted by a single individual to ensure consistency. Public health nurses were recruited using purposive sampling. A sample of 16 was determined to be large enough to allow for insightful data and reasonable ease of qualitative data management. The narrative segments of the respondents were broken down thematically into specific research questions and pertinent responses. The data indicated that public health nurses rarely look inside a child's mouth, and instead their responses relied on a spectrum of proxies including parental decay, poor diet and hygiene practices and parental attitudes toward oral health to evaluate dental health and potential neglect. The analysis highlights that public health nurses engage in proxies, opportunistic observation, and discussion with parents; however, with such methods, dental neglect may remain unidentified and not communicated. Bradbury-Jones et al. (2013) ultimately conclude that the threshold for dental neglect, as well as the means of assessment, are neither uniform nor well defined. The study provides valuable information as to the understanding of dental neglect by non-dental professionals. However, it is also important to note that public

health nurses hold a specific role in Scotland that may not be transferable to other health care professionals, who evaluate cases of abuse and neglect in other countries.

Similar to nurses, physicians often routinely see children for well-child visits which may pose an opportunity to evaluate dental well-being. Whyatt et al. (2021) sought to pilot a survey to investigate the current awareness of child dental neglect amongst general medical practitioners in Greater Manchester and to investigate barriers to the reporting of child dental neglect concerns. The study distributed an anonymous electronic pilot questionnaire via email to a sample of general practitioners in Great Manchester. The respondents gave information about their experience and training in child neglect and their management of suspected cases. The study had seven respondents to the pilot questionnaire. While 100% of participants completed postgraduate training in child protection, only 25% felt adequately trained in the mechanisms of escalation and referral of a suspected case of child dental neglect. There was a universal acknowledgment that further training is required, and common barriers included the lack of certainty of the diagnosis and confidence in their suspicion. Most general medical practitioners felt that they were well situated to identify dental neglect in their role and the majority were prepared to aid in its recognition (Whyatt et al., 2021). While this study was very limited in sample size, the findings indicate the importance of the education of individuals outside of the dental profession in identifying and managing cases of pediatric dental neglect.

Within the frame of dental neglect, Colgan et al. (2018) aimed to assess if general medical practitioners were sufficiently trained to identify dental neglect as a broader marker of child neglect. A structured survey was sent to all National Health Service (NHS) general medical practitioners (GPs) in the Isle of Wight, UK (n = 106). Fifty-five GPs responded in this study, and 50% of respondents had never had a liaison with a dentist. The study also found that 50% of

GPs believed childhood immunizations were more important than registration with a dentist and 96% of GPs had never received any form of dental training (Colgan et al., 2018). The study highlights the importance of interdisciplinary training of all healthcare professionals in identifying dental neglect as a broader marker of child neglect.

In addition to understanding different professional responses to dental neglect, it is also imperative to compare the response of various members of the healthcare team to cases of dental neglect to evaluate gaps in training. Olive et al. (2016) sought to determine the threshold that compared doctors and nurses to dentists to determine the differences in dental and child protection actions in a sample of clinical cases. The researchers utilized a cross-sectional survey of dentists, doctors, and nurses (50 each), who regularly examined children. The study utilized five fictitious vignettes, combining an oral examination image and clinical history reflecting dental and child protective issues. The researchers found that dentists were significantly better at answering the dental element than doctors and nurses, while only 8% of the doctors and nurses had undergone any training in the assessment of dental health. Although 90.6% of all professionals had undergone child protection training, dentists were significantly less accurate at identifying the child protection component than doctors and nurses (Olive et al., 2016). The study suggests the need for cross-training among healthcare professionals to make healthcare professionals competent in all aspects of child abuse and neglect.

In following the above study, Tuthill et al. (2021) sought to compare the opinions of parents/caregivers on child dental health to determine what level of decay they perceived to be ‘normal’, neglectful or in need of social services involvement in comparison to that of dentists/dental health practitioners, and pediatric health care providers. The researchers utilized the same vignettes mentioned in the study above for 250 families for intervention. The

researchers broadly found that many parents felt that social services involvement would be helpful in these hypothetical cases of dental issues, often more frequently than healthcare workers themselves (Tuthill et al., 2021). The study highlights the variability in the threshold of acceptability in cases between dental professionals and the public, calling for clearer criteria for dental neglect and what constitutes a referral.

Child Welfare Training in Social Work Higher Education

While no study specifically discusses the implementation of education about dental neglect in social work higher education, there is existing literature that discusses training and education of social workers in child welfare contexts where the incorporation of education surrounding dental neglect would be appropriate. Falk (2021) conducted a study of a statewide Title IV-E program that provided support for currently employed child welfare supervisors to obtain an MSW degree. An email requesting participation was sent to alumni of the program who had graduated at least one year prior (N = 54). Of the emails sent, 46 of the 54 graduates completed the questionnaire, with a response rate of 85%. Most (89.1%) of the participants entered the program with undergraduate degrees in a field other than social work, implying that they completed the MSW program as traditional part-time students, taking between 3.5–4 years. The remaining 10.9% qualified for Advanced Standing and completed the program in two years. At program entry, one-third were casework supervisors who supervised supervisors, while two-thirds supervised caseworkers. At the start of the program, all participants were experienced supervisors, averaging six years in supervisory titles. Participants noted that learning to think critically and clinically about cases received the highest mean score (4.8). This response denotes that the MSW-level instruction changed the way in which students approached clinical cases (Falk, 2021). It is also important to note that many of these individuals had varied levels of

experience in child welfare roles and attended different institutional settings. Therefore, universalizing a curriculum regarding pediatric dental neglect would ensure all individuals regardless of experience or type of educational facility attended, achieved a base knowledge of dental neglect.

Trujillo et al. (2020) completed a ten-year cohort study to understand the program experience of graduates with organizational commitment, the impact of the stipends on child welfare professional identity, and the desire to remain in the child welfare field from graduates of the Colorado Title IV-E Child Welfare Stipend Program. The study was conducted via mixed methods including 245 stipend graduates from 2006 to 2016 in Bachelor of Social Work (BSW) and Master of Social Work (MSW) programs. Data included online surveys and focus groups. The results of the study indicated that program participants felt prepared for the job and appreciated the skills gained from participation (Trujillo et al., 2020). Since Title IV-E child welfare programs specifically prepare social workers for the child welfare workforce, this article highlighted the importance of assessing the role of dental neglect in the students' didactic and clinical training in such programs.

Likewise, Gansle and Ellett (2018) evaluated the implementation of a Title IV-E child welfare training program in Louisiana. Child welfare skills were assessed via a paper-and-pencil test of child welfare knowledge to evaluate fundamental prerequisite knowledge for competent child welfare practice, since direct assessment was not logistically possible. Child welfare knowledge was measured utilizing the Louisiana Examination of Child Welfare Information (LECWI). Students were chosen to participate in the stipend program following application, screening, and interview. The program evaluation used a quasi-experimental design as there was a lack of random assignment of participants in the evaluation to stipend and non-stipend groups.

The two independent variables denoted included stipend group and administration (time) of the exam's pre-post program. Gansle and Ellett (2018) found that MSW and BSW programs scored higher on child welfare knowledge following child welfare training. The researchers also found that BSW student stipend recipients made greater gains than non-recipients when controlling for initial scores. MSW students' results appeared to approach significance; however, they may not be significant due to the low power of the statistical analysis. Gansle and Ellett (2018) found that implementation of the Title IV-E child welfare training program improved the knowledge of students and again indicated an important avenue for the incorporation of dental neglect into training.

Finally, Rawlings et al. (2021) utilized data from three universities that partnered to implement a simulation-based learning (SBL) project to better prepare Title IV-E students in engagement competence when working with clients in public child welfare. Participants were full-time MSW students receiving Title IV-E child welfare training stipends, completing internships at public child welfare departments, and enrolled in their final year in the program. A total of 70 students participated over three years. The students took part in a two-scenario Objective Structured Clinical Exam (OSCE) interviewing an adolescent and her mother regarding an allegation of abuse with post-interview reflection and feedback. The project was assessed using standardized rating tools and post-interview reflection responses. The authors found that the students performed better with the adolescent than the more obstinate parent and that student performance improved when completing the OSCE twice in one year and when specific learning modules were added. The researchers also found that the transition from classroom learning to live practice situations provides challenges and simulation-based learning may be utilized to bridge that gap. Rawlings et al. (2021) note the importance of interactive case

scenarios in educating MSW students in the field of child welfare. This may be another means by which dental neglect might be incorporated into a child welfare setting, although dental neglect was not specifically mentioned in this scenario.

Conclusion

While oral manifestations of generalized neglect have been linked to poor oral health outcomes, these outcomes serve as evidence for cases of generalized child neglect. Much of the literature does not treat dental neglect as a specific and important form of child neglect with an etiology and clinical consequence. While it is crucial to understand dental neglect in the context of both, it is difficult to apply its characteristics in the context of greater child neglect without fully understanding dental neglect in isolation.

While the articles aimed to define and provide clinical markers for dental neglect, the definitions and indications remain vague and unclear. Part of the difficulty in creating a clear definition of dental neglect is that the clinical presentation does not equate with intent. Much of the literature utilizes the term dental neglect interchangeably with poor oral health. The historical context of the oral health status as noted by Baptista et al. (2017) is critical in determining intent and the subsequent required response. Risk factors for poor oral health outcomes in children were more readily available in the literature than those related specifically to dental neglect as a form of child maltreatment. Therefore, clear risk factors specific to dental neglect are not robustly defined in the existing literature.

Additionally, the literature points to gaps of knowledge regarding dental neglect both within the dental field as well as the professions that may also identify and/or manage cases of dental neglect. The literature cites inadequacies in training in all professions in dealing with such

cases. It also notes gaps in interprofessional communication and facilitation of services for children who have suffered from dental neglect.

Although the literature addresses gaps in knowledge regarding the education and training of interdisciplinary healthcare members who may be involved with children at risk for dental neglect, no study specifically evaluates dental neglect in the context of social work education. As social workers are the dominant profession in child welfare with the responsibility to respond to reported cases of child abuse and neglect, it is imperative to ensure that they receive the appropriate foundational educational knowledge in their MSW training to help them identify and manage cases of child abuse and neglect.

Section 4: Theoretical Framework

This study utilized both social construction theory and systems theory as theoretical frameworks to comprehend how dental neglect can be understood in a child welfare setting and to help to explain parental behaviors. Social construction theory provides an understanding of societal values of acceptable child caregiving practices. It is useful in understanding how these beliefs contribute to child welfare decision-making. Social construction theory aids in explaining parenting practice and why dental neglect may occur as an outcome of these practices. Furthermore, social construction theory provides a compelling rationale for why dental neglect should be included in a child welfare curriculum. Systems theory provides an alternative explanation to circumstances of dental neglect and can be utilized to help differentiate circumstances of child dental neglect versus unintentional dental neglect due to the unavailability of resources. These theories will further help to inform child welfare faculty members' identification, proposed management, and prioritization of dental neglect in an educational context.

Social Construction Theory

Historically, the impact of social construction theory was crucial in the 1990s in extending social workers' use of ideas from social psychology (Payne, 2014). Developed by Berger and Luckmann (1966), social construction theory posits that reality is not objective; rather, it is socially constructed (Reisig & Miller, 2009). A social construct is a shared and accepted picture of the world that is created by a group of individuals through social interactions (Payne, 2014). An example of a social construct is gender, as the idea of what it means to be a man or woman, or not fitting into these binary roles, has been created by society. It is through no

form of biology that the color pink is associated with being feminine, but rather is a widely shared social concept that has been accepted as such.

As one can observe through the challenges faced by binary gender roles in the recent political climate, these shared ideas can be reshaped and formed as society adapts and changes. These patterns of social relationships are how individuals are socialized into social groups and work to create expectations about how people should behave in various social settings. Social constructs are so widely shared that they become a reality for the individuals within the society (Payne, 2014). Moreover, the author states that proponents of social construction theory are interested in processes of claims-making in the context of social problems. Social problems arise when a social group makes a claim about a social issue that is identified as problematic and in need of intervention via social and political action (Payne, 2014). Social construction enables us to understand the challenges of addressing dental neglect. Although dental neglect has 'real' consequences for child health, the ideas around neglectful parenting may be considered constructed, and therefore contested, social problems.

Social Construction Theory as an Explanation of Social Work Decision Making

Acceptable child-rearing practices are socially constructed, as they are historical, cultural, and social products (White & Hoskins, 2011). Similarly, the concept of child abuse is considered a social problem or socially deviant behavior. Child abuse falls into a specific set of parenting practices that are seen as socially unacceptable or those practices that require social intervention, as deemed by society. The role of child welfare is to intervene in circumstances where parenting practices fail to meet the socially agreed-upon set of standards and values. Individuals are influenced by general macro social constructs of reality as well as a reality created on more meso levels, such as practices or standards accepted by an individual's community. For example, some

practices are relatively widely accepted as unacceptable on a macro level, such as murdering a child. Gelles (1975) noted that one of the major issues of child abuse as a social problem is the challenge of defining it due to the idiosyncratic understandings of child abuse. In adopting a social constructivist approach to the definition, one must acknowledge that the definition and criteria of child abuse are perhaps more fluid than it is wished to be acknowledged and is subject to human interpretation and environmental factors.

Solomon (2002) utilized four assumptions of social construction theory to find a constructionist approach to understanding social work practice in child welfare. Using a social constructivist approach draws attention to the socio-political, economic and historical conditions that affect child welfare policy and practice. Secondly, child welfare is not static but subject to change as it is reshaped by ideas over time. Thirdly, it shows the link between individual lived experiences, power and knowledge in the various directions taken by the field in how family life is viewed and how it is assessed. In addition, it emphasizes the significance of the local and actual processes of social work practices including the ways in which social workers recreate and create professional standards. Finally, it provides an analysis of traditional theories and terms routinely used in child welfare to describe the scope and direction of the work in clients' lives, for example, "safety," "risk," and "abuse/neglect" (Solomon, 2002).

Categories, such as dental neglect, fall into a gray area. Given the challenges of having an unclear standard, workers are left on their own and will draw on their own understanding. For some individual child welfare workers, based on their constructed perceptions of reality, dental neglect may be a low priority, while for others, it is considered as important as generalized child abuse and neglect. While humans wish to believe that they are objective decision-makers, individuals are strongly influenced by their perceptions and values that are created by their social

environment and their socially constructed realities. The social constructionist theory takes into account the ambiguities and uncertainties of everyday practice and recognizes that there are multiple interpretations of what is good or true (White & Hoskins, 2011). Therefore, individual child welfare workers' individual experiences and perceptions of reality influence their identification of cases of child maltreatment, which includes dental neglect.

Social Construction Theory as an Explanation of Parental Role in Dental Neglect

As stated in the above section, acceptable parenting practices are socially constructed (Reisig & Miller, 2009). Similar to how child welfare workers may have differing perceptions of what constitutes as child abuse, the same is true for parents and caregivers. The authors note that child-rearing practices may vary greatly across cultures. For example, if a parent believes in homeopathic remedies for a child as opposed to traditional U.S. healthcare, that parent may be seen as medically neglecting their child even though the caregiver believes that he or she is indeed caring for the child (Reisig & Miller, 2009). It is further noted that these cultural incongruities can particularly affect immigrant caregivers who are unaware of what may be considered child maltreatment in the United States. The above example demonstrates varying social constructs of reality and the clash between these two realities when the practices and perceptions differ drastically from what is considered acceptable by child welfare standards. In another example, some parents may believe that intense physical punishment is acceptable as this is something that is widely practiced in their community or family system. While it may not be considered acceptable from a child-welfare standpoint or a general societal standpoint in the United States, one must acknowledge the multiple realities at play, including the social constructs of the parent or caregiver that influence their behaviors and actions.

When discussing the social construction of child-rearing from a caregiver perspective, dental neglect complicates the situation further, as many cultures and communities place little value on dental care. Families may ascribe to the notion that the child's primary teeth are going to fall out, and therefore, should not be treated. While this does not excuse caregivers who actively ignore their child's dental health even when accommodations and education have been provided, it does provide an explanation for the caregiver's actions of failing to seek care aside from pure malintent.

Social Construction Theory in Child Welfare Education

Dewey (1897) posited, "All education proceeds by the participation of the individual in the social consciousness" (p.77). This social consciousness is essentially a collectively shared social identity and includes recognition of participation in a collective social whole. The author believed that the educational space was a means by which to regulate this social consciousness. Therefore, child welfare education is an opportunity to conceptualize and develop the shared meaning of child abuse and neglect. In conjunction with this concept, dental neglect should be incorporated as a meaningful aspect of child welfare training to develop a shared importance and need to address it in the greater context of child welfare.

Systems Theory

From a historical timeline, systems theory demonstrated a major impact on social work in the 1970s (Payne, 2014). It was a reaction against psychodynamic theory and seemed to counter psychodynamic failures in addressing the social context of the client. Early contributions were made by Hearn, who began to apply systems theory to social work. However, the greatest impact was brought about by two published interpretations with significant international influence that

applied systems theory to practice: studies by Goldstein (1973) and Pincus and Minahan (1973). The key concept of systems practice is to avoid focusing only on the individual (Payne, 2014).

Gitterman et al. (2013) note that the crux of systems theory focuses on the reciprocity between the person and environment exchange. In direct practice, these reciprocal relationships can be evaluated on an individual client level and can be utilized to understand client behavior. Payne (2014) states, "Systems are entities with boundaries within which physical and mental energy are exchanged internally more than they are across the boundary" (p. 191). These systems function by processing energy which is defined as actions, resources, and information. The levels of systems "refer to the fact that large macrosystems contain smaller mesosystems, which in turn contain microsystems. The system level selected as the focus of concern may vary. For example, individuals are part of suprasystems such as families and organizations, which are bigger than the individuals, but encompass them" (Payne, 2014, p. 191). Following the evaluation of the functionality of a system, one can analyze the input or energy being fed into the system across a boundary, as well as the throughput, which depicts how that energy is used within the system. The output is then considered the effect on people or things outside of the boundary of the energy that has disseminated into the environment.

Bowers and Bowers (2017) believe, "It is the context that contributes to the holistic and more accurate understanding of the individual; i.e., the system in which the individual is involved" (p. 243). General systems theory allows for a multifactorial explanation that integrates social intervention with individual help (Payne, 2014). An offshoot of general systems theory, ecological systems theory focuses on the psychological individualistic equilibrium, rather than the important environmental issues. Sometimes, it is not simply the individual client who

requires intervention. Systems theory allows for the identification of systems outside of the client that may also require intervention through external factors impacting a client.

Systems Theory as an Alternate Explanation of Parental Role in Dental Neglect

In recognizing these external factors, a systems approach can be utilized to show how a family's interactions with informal, formal, and societal systems can impact access to care (Payne, 2014). Families can face challenges when interacting with societal systems such as healthcare. Personal barriers can include the lack of childcare, transportation or informal support networks (Heaman et al., 2015). Barriers within the healthcare system may include shortages of providers, long wait times, short and perceived impersonal visits, along with long physical distances from the patient to the healthcare centers (Heaman et al., 2015).

In the case of treating a patient in the operating room for comprehensive dental care, informal networks such as family members can also influence parental decisions. Stokes and Schmidt (2011) note that child protective work can be reductionist and individualistic in perspective and can thereby blur the context of an individual's life in child welfare decision-making. Discourse in child protection places individual blame on caregivers from protecting case workers from vulnerability, even if that vulnerability is based on structural and historical inequity of resource allocation.

General miseducation regarding dental treatment needs of primary teeth, or fear surrounding treating children in the operating room, can influence a parent or caregiver to change a plan of care or fail to follow-up on treatment. Gelles (1975) states that while using a systems approach to child maltreatment, each agency has its own gatekeepers, definitions, and criteria, and thus they each have a different impact on the suspected abuser. Payne (2014) defines

an open system as a system where energy can cross permeable boundaries. In an open system, interdisciplinary care can be facilitated as well as the ability to address caregiver gaps in systems use and identify patterns or behaviors in systems usage.

Based on difficulty interacting with, and lack of integration of systems, one can observe how dental neglect may be unintentionally perpetrated. While it is easy to believe that the child has caries because the parent did not take the child to the dentist frequently enough, the oral health outcome has influences well beyond that of the parent's control. One can also see how groups that are systematically discriminated against could be grouped into the category of "bad caregiving" when significant barriers prevent them from obtaining services. Systems theory facilitates the idea of dental neglect in certain circumstances where social systems or gaps within those systems prevent a family from accessing care. It provides a counterbalance to the social constructionist theory that emphasizes what is seen as socially acceptable or valuable child caregiving practices and provides an explanation for why these valued practices are not met in some cases.

Connection to Research

Social construction theory was utilized to help explain how social work faculty prioritize dental neglect and determine the appropriate action in comparison with other forms of child maltreatment. Acceptable parenting practices, as well as the perceived value of oral health, are both socially constructed and thus may vary by geographic region and individual practice experience, beliefs, and values. Systems theory also was utilized to inform the overall research question to understand how the lack of integration of oral health organizations into the child welfare systems leads to a gap in child welfare practices.

Section 5: Research Question

The aim of this study was to answer the research question: What are the attitudes, perceptions and knowledge of educators teaching Master of Social Work child welfare courses toward pediatric dental neglect? The following questions and hypotheses aided in answering the overall research question.

Sub-question One: Does knowledge of dental neglect affect the perceived severity of action toward, and classification of dental neglect as a form of child maltreatment?

Hypothesis One: Knowledge of dental neglect will increase the perceived severity of, and classification of dental neglect as child neglect, but will not affect the action taken.

Sub-question Two: Does experience managing dental neglect affect the perceived severity of, action toward, and classification of dental neglect as a form of child maltreatment?

Hypothesis Two: Experience managing dental neglect will increase the perceived severity of, and classification of dental neglect as child neglect, but will not affect the action taken.

Sub-question Three: Does the perceived comfort in identifying dental neglect affect the perceived severity of, action toward, and classification of dental neglect as a form of child maltreatment?

Hypothesis Three: Perceived comfort in identifying dental neglect will increase the perceived severity of, and classification of dental neglect as child neglect but will not affect the action taken.

Sub-question Four: What are current MSW child welfare educators' perceived risk of dental neglect compared with other forms of child maltreatment?

Hypothesis Four: Child welfare educators will indicate dental neglect as less in comparison to other forms of child maltreatment.

Sub-question Five: Does the perceived level of importance of incorporating dental neglect into the MSW curriculum affect the perceived severity of action toward, and classification of dental neglect as a form of child maltreatment?

Hypothesis Five: Increased level of importance of incorporating dental neglect into the MSW curriculum will increase the perceived severity of, and classification of dental neglect as child neglect, but will not affect the action taken.

Sub-question Six: Are there differences in current MSW child welfare educators' proposed level of action, for dental neglect compared with other forms of child maltreatment?

Hypothesis Six: Child welfare educators will indicate dental neglect as requiring milder action than other forms of child maltreatment.

Section 6: Methodology

Research Design

The research perspective of this study was quantitative with four open-response questions. Since there is virtually no existing literature surrounding this subject, the study garnered a broad understanding of the research subject to inform future research. The study employed a descriptive design using a cross-sectional and purposive sampling strategy. As defined by Aggarwal and Ranganathan (2019), a descriptive cross-sectional design describes the distribution of one or more variables without regard to a casual hypothesis. This is done with the collection of information on the presence of the level of one or more variables of interest as they exist in a defined population and at a particular time. A web-based survey was sent to Master of Social Work faculty who teach child welfare. Prior to dissemination to faculty, the survey tool was evaluated by a child welfare expert to identify changes required to assist with the validity of the survey tool.

Data and Subjects

Master of Social Work programs were identified using the Council on Social Work Education website. Master of Social Work programs were selected due to students' likely subsequent attainment of licensure and participation in the workforce in the capacity of a social worker, thereby increasing the need for a strong foundational child welfare knowledge. Only fully accredited programs in the United States were considered for this study. Faculty who taught child welfare at the MSW level were identified via the program website or an identified institutional or child welfare faculty member. Only faculty who were currently on staff at the time of data collection were contacted to participate.

Measures

The survey was divided into four discrete sections. The first section provided five case vignettes modified from the CARIS Child Abuse Report Intention Scale. The survey was intended for nurses as an assessment of child welfare decision-making. A portion of the scale was modified with direct permission from the author for its use in this dissertation (Feng & Levine 2005). The vignettes included cases of supervisory neglect, medical neglect, physical abuse, and sexual abuse. The dental neglect vignette was created de-novo as the CARIS vignettes did not include a case of dental neglect. After each vignette, the respondent was asked to rate the seriousness of the case on a scale of 1–10, with one being not at all serious and 10 being the most serious. The respondent was then asked the extent to which the case represents abuse/neglect on a scale of 1–10 with 1 being definitely not and 10 being definitely yes. The final question asked for a decision on how to proceed with the case, the first option being a family assessment typically utilized for lower risk cases and one where blame was not asserted, and the second being an investigative report, which would require the future need for substantiation (Child Welfare Information Gateway, 2020). Comparison of the responses between all the child maltreatment vignettes was utilized to analyze variability in responses and perspectives between dental neglect as a form of child maltreatment and other forms of child maltreatment. The comparison between the vignettes was utilized to answer hypotheses four and six (Table 2).

Table 1

Dental Neglect Vignette Dependent Variables

Subquestion	Hypothesis	Variable Name	Definition	Level of Measurement	Variable Use	Analysis
Sub Questions #1-6	Hypotheses #1-6	Dental Neglect Action	The proposed response pathway for a suspected case of child abuse or neglect.	Dichotomous	Dependent	Hierarchical Linear Model (HLM)
Sub Questions #1-6	Hypotheses #1-6	Dental Neglect Classification	The extent the participant feels the scenario constitutes child abuse or neglect.	Ordinal	Dependent	Hierarchical Linear Model (HLM)
Sub Questions #1-6	Hypotheses #1-6	Dental Neglect Severity	The extent the	Ordinal	Dependent	Hierarchical Linear

			participant rates the seriousness of the allegations			Model (HLM)

Table 2

General Child Maltreatment Vignettes Dependent Variables

Subquestion	**Hypothesis**	**Variable Name**	**Definition**	**Level of Measurement**	**Variable Use**	**Analysis**
Sub Questions #4 and 6	Hypotheses #4 and 6	Sexual Abuse Action Medical Neglect Action Supervisory Neglect Action	The proposed response pathway for a suspected case of child abuse or neglect.	Dichotomous	Dependent	Hierarchical Linear Model (HLM)

		Physical Abuse Action				
Sub Questions #4 and 6	Hypotheses #4 and 6	Sexual Abuse Action Medical Neglect Action Supervisory Neglect Action Physical Abuse Action	The extent the participant feels the scenario constitutes child abuse or neglect.	Ordinal	Dependent	Hierarchical Linear Model (HLM)
Sub Questions #4 and 6	Hypotheses #4 and 6	Sexual Abuse Action	The extent the participant	Ordinal	Dependent	Hierarchical Linear Model (HLM)

		Medical Neglect Action Supervisory Neglect Action Physical Abuse Action	rates the seriousness of the allegations			

Subsequently, section two evaluated the respondents' knowledge, comfort in identifying, and comfort in managing cases of dental neglect. Knowledge of dental neglect was considered a moderating variable as it was hypothesized to moderate the relationship between the independent and dependent variables. The section also evaluated questions related to perceived level of importance of dental neglect. Table 3 reports these variables.

Table 3

Dental Neglect Independent Variables

Subquestion	Hypothesis	Variable Name	Definition	Level of Measurement	Variable Use	Analysis
Q#1	H1	Definition	If the participant had prior knowledge of the AAPD definition of dental neglect.	Dichotomous	Moderating Variable	HLM
Q#3	H3	Identify	The extent the participant feels comfortable identifying cases of dental neglect in	Ordinal	Independent Variable	HLM

			clinical practice.			
Q#3	H3	Difficulty to Identify	The extent the participant feels it is difficult to identify cases of dental neglect in clinical practice.	Ordinal	Independent Variable	HLM
Q#2	H2	Management History	The extent the participant has managed cases involving	Continuous	Independent Variable	HLM

			dental neglect.			
Q#2	H2	Management	The extent the participant feels comfortable managing cases of dental neglect in clinical situations.	Ordinal	Independent Variable	HLM
Q#1	H1	Clinical Training	The extent of the participant reports having clinical training specific to	Ordinal	Independent Variable	HLM

			dental neglect			
Q#1	H1	Educational Training	The extent the participant reports having educational training specific to dental neglect	Ordinal	Independent Variable	HLM
Q1	H1	Willingness to Learn	The extent the participant is willing to obtain additional training on dental neglect.	Dichotomous	Independent Variable	HLM

Q#1	H1	Knowledge	The extent the participant reports having adequate knowledge to teach about dental neglect a the MSW level	Ordinal	Moderating	HLM
Q#5	H5	Relevance	The extent the participant believes it is relevant to incorporate dental neglect into the child welfare curriculum	Ordinal	Independent Variable	HLM

Q#5	H5	Often	How often the participant incorporates dental neglect into the child welfare curriculum.	Ordinal	Independent Variable	HLM
Q#5	H5	Combination	If the participant combines dental neglect with medical neglect	Dichotomous	Independent Variable	HLM

The third section asked for demographic information of the individual participant including highest level of education, race, age, and gender identity. The survey also collected information on years of experience working in child welfare, years of experience teaching child welfare, supervisory experience in child welfare, and the classroom format of the child welfare instruction.

The fourth section garnered information regarding the individual faculty's institution including the size of the college/university, whether the school was public or private, if there was an affiliated dental school, and the geographic and regional location of the school. The survey also inquired about specific child welfare information including if the school possessed a Title IV-E partnership and if the program offers a concentration in child welfare.

In addition, there were open-response variables that were incorporated in the survey. Two of these questions evaluated why or why not an individual may be comfortable identifying/ managing cases of dental neglect. The use of open response helped to provide better detail as to how to better train MSW faculty to teach about dental neglect by evaluating potential gaps in knowledge and barriers to practice. The remaining two response questions evaluated why the participant made the decision to pursue an investigative versus a family assessment response for dental neglect and medical neglect. This information helped to identify patterns in decision-making surrounding dental neglect and allowed for comparison to medical neglect.

Procedures

First, the research study obtained IRB approval. Prior to survey dissemination amongst the target demographic, a key informant who works in the field of child welfare and child welfare education, made modifications to the survey to help achieve content validity. Content validity pertains to whether the survey tool covers all the content in the underlying construct (Fitzpatrick,1983). The content of the original vignettes was modified to provide more specific background information that would be of interest to an individual in the social work profession, which would not be as pertinent in a healthcare setting in guiding action. This additional information helped to better address ambiguities in cases that might distract from the intent of the vignette. For example, in the case of supervisory neglect, it was added that the parent left the

child alone not due to employment needs or social barriers, but for recreational activities. In addition to modifications to the vignettes, an explanation was added prior to the section of the vignettes to explain the difference between the two types of actions available for response, as these terms may have variable names across the United States. Finally, a question was added to the original survey to evaluate if the participant had child welfare supervisory experience, since holding responsibility for staff members' work may impact the individual's actions and responses to questions. Following the survey modifications, the programs were then contacted for survey dissemination.

Data Collection

The finalized survey data collection began in September 2022 and was sent to all accredited MSW programs. The dean of Wurzweiler School of Social Work at Yeshiva University sent out an initial request in September 2022 and a second request in December 2022. Due to the low response rate from the email sent by the dean of students in September 2022, individual MSW social work programs were contacted directly by the researcher. Programs were located through the Council on Social Work Education. The program list was populated by filtering MSW programs and current accreditation status, after which schools were contacted individually. MSW program directors and MSW/Field placement directors were sought out if possible as well as known child welfare faculty or Title IV-E coordinators.

If a known contact could be identified, the individual was contacted directly; otherwise, the listed program contact on the website was contacted and a request was made to forward the survey link to the appropriate faculty. If a program directed the researcher to contact a faculty member, the faculty was subsequently contacted, and the survey was forwarded. Select Yeshiva faculty were also requested to send the survey to previous social work connections. 306 fully

accredited master's programs in the United States were contacted. If no faculty could be identified, the general social work program email was utilized. If the program did not respond upon the initial point of contact, a follow-up email was sent as a second reminder after approximately two to three weeks.

In addition to contacting individual schools, the survey was posted on the NASW Online Community post board in the specialty practice section of Child Welfare, Child, Adolescent and Young Adult, School Work under the community title, *Children Youth and Schools*, on October 28th, 2022. The survey was also sent out through the Title IV-E email listserv on November 8th, 2022. Data collection was terminated on December 3rd, 2022.

In completing a power calculation for ANOVA with a 95% confidence interval and 80% power, the sample size of the study needed to be 39 participants to detect moderate changes. While 86 individuals responded, not all surveys were completed, and analysis was only completed of surveys where data was able to be extrapolated. The number of responses to all the survey questions was above the minimum threshold (39) to detect significantly moderate changes.

Data Analysis

The data was transferred into the quantitative data program STATA, where the data was subsequently analyzed. Primarily, descriptive statistics were employed, including frequencies for categorical variables and means and medians for continuous variables (Lane & Dubowitz, 2009). Hierarchical linear modeling (HLM) was utilized to analyze the data.

In utilization of HLM, each rater was considered to be a cluster with characteristics. For example, characteristics of the rater were gender, race, experience with dental neglect and other independent/demographic variables as noted in the section above. The vignettes were within the

rater who have varying characteristics. Variation in the individuals impacted the responses to the vignettes and were therefore analyzed through the HLM model.

Models of analyses of the dependent variables were run individually with each independent variable. Significant independent variables were then combined to determine if the relationship was still significant in the presence of other independent variables. Independent variables were removed from the model if the introduction of additional significant independent variables rendered the variable no longer significant, or if there were inadequate respondents in certain response groups within the variable to obtain meaningful conclusions in the analysis. The latter was true for the variable combination, race and Hispanic.

Qualitative responses were analyzed using content analysis whereby meanings formulated through participant responses were manually clustered into themes, allowing for the development of common themes across participants.

Protection of Human Subjects

Data were collected anonymously. All subjects were provided with informed consent on the first page of the survey prior to the survey questions. All participation was voluntary, and participants were informed that they may stop participating at any time by exiting the survey window. A waiver for written consent was obtained to minimize a breach of confidentiality.

Section 7: Results

A total of 86 participants responded to the survey. Surveys were filtered for analysis based on respondents who answered questions past consent. This left 65 respondents who answered a portion of the survey with data appropriate for analysis. Sixty-two respondents completed at least one vignette. This was acceptable as HLM will work with incomplete data (raters) within clusters.

Quantitative Results

Descriptive Statistics

Tables 4–6 present detailed information regarding demographic variables of the participant, institution, and questions pertaining to knowledge of, attitudes toward, and perceptions of dental neglect.

Table 4 represents demographic information about the individual participant. The sample reflects overall national demographic trends in social work professionals being predominantly white (67.39%) and female (81.6%) (Salsberg et al., 2020). The second largest racial demographic group includes individuals who identified as Black or African American (26.09%). Only a small number of participants (6.1%) identified as being Hispanic or Latino, Asian (2.17%), or Native Hawaiian or Other Pacific Island (4.35%). The mean age, years of work experience in child welfare, and years of teaching in child welfare of the participants exhibited large standard deviations, indicating a widespread in these variables. The majority of participants maintained a MSW degree (55.1%) and were full-time faculty (77.1%). About 68% of the respondents had experience supervising child welfare staff, and most of the participants taught child welfare in both a didactic and field instruction format (47.9%).

Table 4

Individual Participant Demographic Data

	M(SD)	*N(%)*
Gender		
Male		9 (18.4)
Female		40 (81.6)
Age	51.8(11.3)	
Years Working in Child Welfare	21.3(11.2)	
Years Teaching in Child Welfare	12.3 (8.8)	
Race		
Native Hawaiian or Other Pacific Island		2 (4.35)
Asian		1 (2.17)
Black or African American		12 (26.09)
White		31 (67.39)
Hispanic or Latino Origin		
Yes		3 (6.1)
No		46 (93.9)
Education		
Master's degree in social work		27(55.1)
Master's degree in Non-Social Work Discipline		2 (4.1)
PhD in Social Work or DSW		13(26.5)

Doctoral Degree in Non-Social Work Discipline	7 (14.3)
Faculty Status	
Full-Time	37 (77.1)
Part-Time	11 (22.9)
Experience Supervising Child Welfare Staff	
Yes	32 (68.1)
No	15 (31.9)
Instructional Format Teaching Child Welfare	
Didactic Instruction	4 (29.2)
Field Instruction	11 (22.9)
Both	23 (47.9)

Table 5 represents demographic information regarding each institution. Most participants belonged to institutions that participated in a Title IV-E partnership (80.4%). Most participants also worked in institutions with greater than 15,000 students (53.1%), were found in urban settings (63.27%) and worked at public institutions (83.7%). Moreover, most of the programs were in the West (37.5%), followed by the South (25%), Midwest (22.9%) and Northeast (14.6%). Of the programs, 51.1% offered a child welfare concentration, and only 27.7% had an affiliated dental school.

Table 5

Institutional Demographic Data

	M(SD)	*N(%)*
Title IV-E Partnership Participation		
Yes		9 (19.6)
No		37 (80.4)
Institutional Size		
Less than 5,000 students		6 (12.2)
5,000–15,000 students		17 (34.7)
Greater than 15,000 students		26 (53.1)
Region		
Urban		31 (63.27)
Rural		11 (22.45)
Suburban		7 (14.29)
Public or Private Institution		
Public		41 (83.7)
Private		8 (16.3)
Geographic Location		
Northeast		7 (14.6)
Midwest		11 (22.9)

West	18 (37.5)
South	12 (25)
Offers a Child Welfare Concentration	
Yes	24 (51.1)
No	23 (48.9)
Does the institution have an affiliated dental school?	
Yes	13 (27.7)
No	34 (72.3)

Table 6 illustrates information pertaining to participant knowledge of, attitudes toward and perceptions of dental neglect. The majority of MSW faculty respondents (64%) were not familiar with the AAPD definition of dental neglect. Most participants stated that they were sometimes (39.6%) or often (33.3%) comfortable managing, and sometimes (44.9%) or often (34.7%) comfortable identifying cases of dental neglect. Most faculty believed that they did not have educational and clinical training to teach about dental neglect; however, many found it very relevant to the child welfare curriculum. Additionally, 87.8% expressed a willingness to receive additional training on dental neglect. Participants noted no (68%) or insufficient (26%) educational training, as well as no (80%) or insufficient (16%) clinical training on dental neglect. The average cases of dental neglect managed by participants was 3.9; however, the standard deviation (7.7) noted a spread in the data. Many participants (46.9%) somewhat agreed that it

was difficult to identify dental neglect in clinical practice. Participants also acknowledged that dental neglect is discussed very little (43.75%) in their child welfare curriculum.

Table 6

Dental Neglect

	M(SD)	*N(%)*
Prior Familiarity with the AAPD Definition of Dental Neglect		
Yes		18 (36)
No		32 (64)
Do you feel comfortable managing cases of dental neglect in clinical practice?		
Never Comfortable		1 (2.1)
Rarely Comfortable		7 (14.6)
Sometimes Comfortable		19 (39.6)
Often Comfortable		16 (33.3)
Always Comfortable		5(10.4)
Do you feel comfortable identifying cases of dental neglect in clinical practice?		
Never Comfortable		1 (2)
Rarely Comfortable		4 (8.2)
Sometimes Comfortable		22 (44.9)

Often Comfortable	17 (34.7)
Always Comfortable	5 (10.2)

Do you feel you have had sufficient educational and clinical training to teach about dental neglect?

Somewhat agree	6 (12)
Neither agree or disagree	7 (14)
Somewhat disagree	18 (36)
Strongly disagree	19 (38)

How relevant is dental neglect to the child welfare curriculum?

Very Relevant	23 (46.9)
Somewhat Relevant	19 (38.8)
Neither Relevant or Irrelevant	7 (14.3)

If you do not feel you have sufficient training, would you be willing to receive further training?

Yes	43 (87.8)
No	6 (12.2)

Have you had educational training specific to dental neglect?

No Educational Training	34 (68)
Insufficient Educational Training	13 (26)
Sufficient Educational Training	3 (6)

Have you had clinical training specific to dental neglect?	
No Clinical Training	40(80)
Insufficient Clinical Training	8 (16)
Sufficient Clinical Training	2(4)
In clinical practice how many cases of dental neglect have you managed?	3.9 (7.7)
How often is dental neglect discussed in your child welfare curriculum?	
To a Great Extent	2 (4.17)
Somewhat	12 (25)
Very Little	21 (43.75)
Not at all	13 (27.08)
In your child welfare course dental neglect is taught as:	
Its Own Specific Subset of Child Neglect	1 (2.2)
Combined with Medical Neglect	44 (97.8)
Please describe the extent to which you agree with the following statement:	
It is difficult to identify dental neglect in clinical practice.	
Strongly Agree	3 (6.1)
Somewhat Agree	23 (46.9)
Neither Agree nor Disagree	12 (24.5)
Somewhat Disagree	9 (18.4)
Strongly Disagree	2 (4.1)

Hierarchical Linear Modeling

Level one describes the sample containing only fixed effects (intercepts and. coefficients). Level two is the model with only a constant. The model implies an intercept for each subject and the coefficient represents the degree to which the average ratings of the dependent variable vary between subjects. The random effects parameter measures the degree of subject-to-subject variation in the slope of the coefficient of the vignette, which is separate for each vignette

Confirming the Appropriateness of the Modeling Strategy

Primarily, the models were run only including the dependent variables to calculate the intraclass correlation coefficient (ICC). As shown in Table 7, the findings indicated that there was variation within the rating of the vignette by each participant. The constant reported is the constant in the fixed portion of the model, which represents the average starting point of each respective dependent variable.

Table 7

ICC for HLM Model with Only Dependent Variable

	Coefficient	*Confidence Interval*	*P*	*Intraclass Correlation Coefficient*
Identification Constant	9.035091	8.822419 9.247763	0.000	0.086606
Seriousness Constant	9.193352	9.023267 9.363436	0.000	0.0844145
Action Constant	0.7601124	0.438359 1.081866	0.000	0.1128971

Roberts (2007) suggested that an initial small intraclass correlation coefficient (ICC) does not rule out the use of HLM, as additional dependence can occur when predictors are added to the model. Additionally, even a small ICC indicates variation within individuals. The small sample could still contribute to faulty p-values and an increased likelihood of type I error if these variations are not addressed in the modeling strategy. Following the addition of the random variable, i.e., the vignettes into the model, Table 8 demonstrates that 29% of the variation for identification, 20% of the variation for seriousness and 37% of the variation for action can be explained by variation within the individual. As the ICC increases with the random variable in the model, it provides further compelling evidence that an HLM with two levels was the appropriate model to utilize for this data analysis.

Table 8

ICC for HLM Model with Dependent Variable and Vignettes

Constant	*Coefficient*	*Confidence Interval*	*P*	*Intraclass Correlation Coefficient*
Identification	9.861654	9.47662 10.24669	0.000	0.2901937
Seriousness	9.866905	9.579539 10.15427	0.000	0.2042263
Action	3.725801	2.243914 5.207688	0.000	0 .3693843

Hypotheses

Analyzing hypotheses one to three, it was found that knowledge of dental neglect had no impact on the perceived severity of, action toward, and classification of dental neglect as a form of child maltreatment. Experience in managing dental neglect did not affect the perceived severity of, action toward, and classification of dental neglect as a form of child maltreatment. Moreover, comfort in identifying dental neglect did not influence the perceived severity of, action toward, and classification of dental neglect as a form of child maltreatment.

Hypothesis four predicted that child welfare educators would indicate dental neglect as a lower level of risk in comparison to other forms of child maltreatment. This hypothesis was confirmed in the identification and seriousness data. While all participants generally noted all the child maltreatment vignettes as serious and as constituting child maltreatment, dental neglect was seen as significantly less serious and less distinctly a form of child maltreatment.

As demonstrated in Table 9, dental neglect had the lowest mean score on a scale of 1–10 for the vignette being identified as child maltreatment. Dental neglect also had the highest standard deviation in rating scores, demonstrating a wider spread of scoring. Sexual abuse, followed by physical abuse, had the highest mean scores of identification of the vignette as child maltreatment. Sexual abuse, followed by physical abuse, had the lowest standard deviations demonstrating more uniformity in scoring amongst participants.

Table 9

Average Score of Dependent Variable Identifications Across Vignettes

	Mean	*SD*	*N*
Supervisory Neglect	9.2	1.7	62
Medical Neglect	8.7	1.5	58
Dental Neglect	7.9	1.8	53
Physical Abuse	9.4	1.4	55
Sexual Abuse	9.9	0.6	54
Total	9.0	1.6	282

The HLM model supported the descriptive data in Table 9. As demonstrated in Table 10, when asked to score the vignette as to how much the situation constitutes neglect in the fixed portion of the model, dental neglect had the significantly greatest decrease in identification score compared to physical abuse followed by medical neglect and then supervisory neglect. Sexual

abuse had the smallest decrease in identification score when compared to physical abuse. The random effects parameters demonstrate variation from one participant to another in the ratings of identification of child abuse and neglect. The model demonstrates that there is the most agreement between participants when comparing identification scores of physical abuse to sexual abuse and the least agreement between participants comparing identification score of physical abuse to dental neglect.

Table 10

Dependent Variable Identification HLM

Type of Abuse / Neglect	*Coefficient*	*CI*		*p*
Supervisory Neglect	-0.6821684	-1.098492	-.2658447	0.001
Medical Neglect	-1.148996	-1.540312	-.7576795	0.000
Dental Neglect	-1.909381	-2.393758	-1.425005	0.000
Sexual Abuse	-0.4145839	-0.7987279	-0.03044	0.034
cons	9.855512	9.686565	10.02446	0.000

Random-effects Parameters	*Estimates*
Supervisory Neglect	1.484974
Medical Neglect	1.320995
Dental Neglect	1.645039
Sexual Abuse	1.255069
Cons	0.371454

Observations 282

As demonstrated in Table 11, dental neglect had the lowest mean score on a scale of 1-10 for seriousness of the events in the vignette, followed by medical neglect. Dental neglect also had the highest standard deviation in rating score demonstrating a wider spread of scoring. Sexual abuse, followed by physical abuse, had the highest mean scores of seriousness and the lowest standard deviations respectively, identifying more uniformity in scoring.

Table 11

Average Score of Dependent Variable Seriousness Across Vignettes

	Mean	*SD*	*N*
Supervisory Neglect	9.3	1.2	62
Medical Neglect	8.9	1.2	59
Dental Neglect	8.0	1.5	54
Physical Abuse	9.8	0.6	55
Sexual Abuse	9.9	0.44	55
Total	9.1	1.3	285

Like the findings for the dependent variable identification, the HLM model supports the data in Table 11. As shown in Table 12, when asked to score the seriousness of the events in the vignette in the fixed portion of the model, dental neglect had the greatest decrease in seriousness score compared to physical abuse followed by medical, and then supervisory neglect. There was no significant difference between the seriousness score of physical abuse and sexual abuse. The random effects parameters demonstrate that there is the most agreement between participants when comparing seriousness scores of physical abuse to sexual abuse and the least agreement between participants comparing seriousness scores of physical abuse to dental neglect.

Table 12

Dependent Variable Seriousness HLM

Type of Abuse /Neglect	*Coefficient*	*CI*	*p*
Supervisory Neglect	-.5272842	-.8236733 -.230895	0.000
Medical Neglect	-.9666714	-1.281773 .65156955	0.000
Dental Neglect	-1.824478	-2.212914 -1.436042	0.000
Sexual Abuse	-.0545455	-.2202693 .1111784	0.519
Cons	9.859838	9.742132 9.977544	0.000
Random-effects Parameters	*Estimates*		
Supervisory Neglect	1.101133		
Medical Neglect	1.153298		
Dental Neglect	1.393914		
Sexual Abuse	.3325817		
Observations 285			

The sixth hypothesis predicted that child welfare educators would indicate dental neglect as requiring milder action than other forms of child maltreatment. Table 13 shows the actions taken across vignettes. Dental neglect had the highest percentage of family assessment responses followed by medical neglect. Whereas sexual abuse had the highest percentage of investigation responses followed by physical abuse. This data supports the hypothesis that educators would indicate that dental neglect requires a milder action response.

Table 13

Comparison of Dependent Variable Action Taken in Vignettes

Vignette	*Family Assessment*	*Investigation*
Supervisory Neglect	23 (37%)	39 (63%)
Medical Neglect	30 (51%)	29 (49%)
Dental Neglect	33 (61%)	21 (39%)
Physical Abuse	6 (11%)	48 (89%)
Sexual Abuse	3 (6%)	51 (94%)
Total	95 (34%)	188 (66%)

The descriptive data of action taken, was also supported by the data in the HLM model. As shown in Table 14 which reports odds ratios for the dependent variable action, when controlling for experience as a child welfare supervisor, gender, years educating in child

welfare and frequency of dental neglect in the curriculum, the odds of investigation response of supervisory neglect decreased significantly by 55%, and for medical neglect and dental neglect decreased significantly by 98% compared to physical abuse. The odds of investigation of sexual abuse compared to physical abuse was not significantly different. Those individuals without supervisory experience had significantly higher odds of choosing an investigation response in the vignettes (234% increase). Females had a significantly higher odds (597% increase) of choosing an investigation response in the vignettes. For every one-year increase in education experience in child welfare, the odds of choosing an investigative response in the vignettes increased by 9%. Finally, for every one unit increase in frequency of including dental neglect in the child welfare curriculum the odds of an investigation response in the vignettes decreased by 44%. Hypothesis Five predicted that the increased level of importance of incorporating dental neglect into the MSW curriculum would increase perceived severity of, and classification of dental neglect as child neglect, but will not affect action taken. Perceived level of importance did not affect perceived severity or classification of dental neglect. However, the frequency of dental neglect in the child welfare curriculum did affect the proposed action taken in the child welfare vignettes.

Table 14

Dependent Variable Action HLM

Type of Abuse / Neglect	*OR*	*CI*	*p*
Experience as Child Welfare Supervisor (No)	3.340411	1.277828 8.732277	0.014
Gender (Female)	6.974192	1.999541 24.32527	0.002
Frequency of Dental Neglect in Curriculum	.5601354	.3280753 .9563403	0.034
Years Educating in Child Welfare	1.089666	1.024329 1.159171	0.006
Supervisory Neglect	.045032	.0070308 .2884278	0.001
Medical Neglect	.0244146	.0033303 .178984	0.000
Dental Neglect	.0244005	.0033257 .1790272	0.000
Sexual Abuse	.5318408	.100273 2.820846	0.458
Cons	7.187348	.7165899 72.08862	0.094
var(_cons)	.3305332	.0007036 155.2738	

Observations 221

Qualitative Data

Four open-response questions were asked to obtain qualitative data. The first two open-response questions requested a rationale for why the participant chose the action response, the investigative or family assessment, for the medical and dental neglect vignettes. The remaining two open-response questions requested rationale for perceived comfort management and identification of cases of dental neglect. It must be noted that several participants responded that they did not have a choice between the two plans of action in their state.

Medical Neglect Action Rationale

Investigation Response. A common theme amongst participants who chose an investigative response was that the situation of medical neglect was an imminent health threat with potentially serious medical consequences, thereby implying a safety concern for the child. Participants also noted the young age of the child, which added to the child's vulnerability in the situation. Additionally, parental fitness was also questioned, noting that the parents were either unable or unwilling to obtain medical care for the child. Finally, participants also noted that the parents directly ignored a physician's directive of medical advice to obtain more advanced care for their child.

Family Assessment. Participants who chose family assessment primarily noted a lack of information on social barriers or health literacy barriers that may have caused the family to not present to the hospital. It was also noted that the parents sought assistance from the pediatrician, indicating concern for the child's well-being. Others questioned the amount of time that had elapsed between the initial pediatrician encounter and the lack of follow-up to the hospital, stating that there was inadequate information to determine whether enough time had passed for the directive to be considered ignored. Many individuals noted the role of the social worker to be

facilitative and supportive toward the families, implying that the family assessment response was the preferred method to engage with the family to manifest a lasting long-term outcome.

Dental Neglect Action Rationale

Investigation Response. Like medical neglect, a common theme amongst participants who chose investigative response was that the situation of dental neglect was an imminent health threat with potentially serious medical consequences. Participants also noted that the child suffered actively from pain. Several participants who chose an investigation response identified that the family had already been engaged in obtaining resources and eliminating barriers to care and that the parents were made aware of the severity of the child's oral health condition. One participant also suggested the potential for child removal.

Family Assessment. Several participants who chose the family assessment response questioned the presence of unaddressed or unknown social or cultural barriers. Participants also noted a possibility of parental misunderstanding or lack of understanding of the severity of the child's oral health condition. A few participants believed that the child's condition was not life-threatening, or the health threat was of unknown risk. It was also noted that the family sought medical services albeit emergency care. While one participant did consider the concept of willful neglect, it was in the context of having to be deciphered from environmental factors, such as poverty and barriers to care that might impact the ability of the family to follow through with appointments. Finally, a common theme as found in the medical neglect vignette was that the family assessment approach was the preferred method to engage with the family to obtain long-term change. Moreover, one respondent stated that substantiating child abuse did not ensure family compliance.

Comfort Identifying and Managing Dental Neglect

Individuals purporting higher levels of comfort managing cases of dental neglect pointed to previous exposure or significant experience in the child welfare workforce. Having the ability to consult with a dental professional was also reported to provide greater comfort in managing cases of dental neglect. Participants who never managed a case in practice or reported no training on the subject felt less comfortable managing cases of dental neglect. Additionally, a few participants reported it to be out of their scope of care. Other participants also pointed to situational factors, such as a lack of resources for families to obtain dental care, which made them feel less comfortable managing these cases.

Specifically, in terms of identifying cases of dental neglect, several participants noted that state definitions of neglect are not necessarily congruent with the AAPD definition, and dental neglect is not necessarily operationalized.

Section 8: Discussion

While the quantitative data reflected similar action trends for both medical neglect and dental neglect, the medical neglect vignette was written more vaguely as it did not address the family's social barriers. Therefore, it can be said that the vagueness in the medical vignette could more readily account for the variability in qualitative rationales for the action of medical neglect. The dental neglect vignette, however, addressed the unknown social, educational, and financial factors of the scenario. The dental neglect vignette stated that the child was in significant pain and suffered from an infection associated with untreated dental caries. Reasonable accommodations had been made for the family to attend appointments, which addressed transportation and financial barriers. The vignette also stated that the family was informed of and understood the severity of the child's oral health condition. Many participants distinctly noted these findings in their rationale, including the current active serious harm to the child's health due to untreated dental caries. However, regardless of these factors being directly addressed in the vignette, many participants still provided rationale pointing to a concern for unaddressed social and cultural barriers to obtaining care, a need to continue to educate the family due to a lack of understanding, and the child's oral health status being of non-urgent or of unknown risk.

It is interesting to note this phenomenon of the continuation to seek social barriers and deficits in familial understanding as an explanation for the family's behavior for those who chose the family assessment response, even after these factors were addressed in the dental neglect vignette. This phenomenon is potentially suggestive of resistance or apprehension toward the consideration of the possibility of willful intent in the context of dental neglect. While willful intent is difficult to prove and should not be arbitrarily ascribed to a child's poor oral health

status, when social barriers have been mitigated, understanding has been established and resources have been allocated, it must be considered.

This phenomenon may also be due to the perceived notion of lack of a potential for serious harm relating to untreated dental caries. The quantitative data supported the qualitative data, depicting that dental neglect is seen as less serious and less distinctly a form of child maltreatment. Based upon the information given in the vignette of pain and infection secondary to untreated dental caries, denoting the child's oral health risk as unknown or not of imminent risk, is possibly suggestive of a lack of understanding of the severity of the systemic health consequences of untreated dental infection and dental caries large enough to cause a child significant pain. The consequences of untreated dental infection and severe untreated dental caries can be life-threatening, and in serious cases, result in death.

Irrespective of the action chosen, the variability in rationale toward the dental neglect vignette demonstrated a lack of uniformity in the way in which dental neglect is conceptualized by MSW child welfare educators. The spectrum of responses varied from child removal to solely helping the family recognize the needs of the child. The quantitative data also reflected this trend, since there was the least agreement among participants when comparing physical abuse to dental neglect in both seriousness and identification with respect to other forms of child maltreatment. The mean scores of identifications and seriousness were also the lowest for dental neglect with the greatest standard deviations.

In terms of action taken, dental neglect had the highest percentage of family assessment responses followed by medical neglect and then supervisory neglect. The generalized trend in the sample toward family assessment response for all forms of child neglect must also be considered. In the qualitative data, participants noted choosing family assessment as a means of developing a

better rapport with families as well as better long-term and lasting changes for the families. Research conducted in Ohio that piloted the alternative response (family assessment) in the state found that the safety of the child was not lessened or compromised by the introduction of the alternative response/family assessment approach (Kaplan & Rohm, 2010). The pilot found that when the families had greater satisfaction with the treatment by their worker, a significant increase in services related to poverty, counseling, mental health services, and satisfaction of families was observed (Kaplan & Rohm, 2010). Therefore, family assessment may be the preferred means of addressing the underlying social barriers that result in child neglect. However, the question of whether family assessment is still the appropriate response when services have been attempted to be addressed remains unanswered as in the case of the dental neglect vignette.

Part of the question may exist in the differing ideas of a parental autonomy between professions. A previously noted in the study problem, Fisher-Owens et al. (2017), through the American Academy of Pediatrics, state, “If parents fail to obtain therapy after barriers to care have been addressed, the case should be reported to the appropriate child protective services agency” (p. 281). This may point to a difference between how parental autonomy is conceptualized in health care versus in the child welfare profession towards obtaining dental care for the child. The issue is further compounded by the idea, as discussed previously, that many cultures and communities place little value on dental care and that dental care is widely viewed as elective care. Families may ascribe to the notion that the child’s primary teeth are going to fall out, and therefore, should not be treated. This concept calls into question the idea of parental autonomy of children’s health and where the ethical line is drawn. There is no clearly documented ethical threshold whereby when education has been provided and barriers

eliminated, that a child's dental pain or suffering can no longer be acceptably excused by parental beliefs as it is not in the physical best interest of the child. Additionally, what also must be considered is that the above description does not necessarily equate with willful intent and the conceptualization of dental neglect may need to be revisited.

Contributions

The research study provided insight into MSW child welfare educators' perceptions, knowledge, and incorporation of dental neglect into the child welfare curriculum. To the best of the researcher's knowledge, there is currently no literature that examines the role of dental neglect in the MSW child welfare curriculum. The research is significant since faculty perceived knowledge of the subject matter, as well as its value, play a key role in the incorporation of the subject into the curriculum. Insight from the research can be utilized to improve social work curricula on dental neglect which will translate to better-equipped students entering the child welfare workforce.

Implications for Social Education

The MSW curriculum provides foundational knowledge for the social work profession. Any professional interacting with children, including social workers, must be well-versed in the signs of child maltreatment, which includes dental neglect. By ensuring that MSW child welfare educators are prepared to educate social workers entering the profession, the new professionals would be equipped with the appropriate tools to identify signs of dental neglect in practice. Faculty participants acknowledged that dental neglect is not frequently discussed in their child curriculum and many respondents felt that they had insufficient training and education to teach about dental neglect. Most faculty identified insufficient educational and clinical training

surrounding dental neglect in their own preparation. However, the vast majority of participating faculty identified a willingness to receive further training on dental neglect.

Based on these findings, efforts should be made to provide additional education on dental neglect to social work faculty members who teach child welfare. Presumably, this knowledge would trickle down from faculty to social work students, strengthening the child welfare workforce in preparation for addressing dental neglect in practice.

Implications for Social Policy and Practice

The majority of faculty teach about dental neglect within the context of medical neglect. While oral health is an integral part of greater physical health, dental care itself is treated disparately by the greater healthcare system within the United States. Medical and dental training are completed, for the most part, independently of one another. Policy and practice surrounding dental neglect must acknowledge this dichotomy. As discussed in the study problem, while it is normalized to require vaccination and physicals for school entry, mandating dental screenings is less uniformly enforced and practiced. This means that children may more readily fall through the cracks in obtaining dental care.

It is also imperative to note that dental care is often practiced outside of a hospital setting in private offices and is more susceptible to barriers to access to care, including insurance acceptance, transportation, and social familial factors. For this reason, identifying dental neglect in practice relies heavily on the ability to obtain a historical understanding of the child's dental health, which can help guide social work decision-making in practice. Several participants noted higher levels of comfort in identifying and managing cases of dental neglect if allowed for the opportunity for consultation with a dental professional. This sentiment highlights the importance of interdisciplinary care between child welfare workers and dental professionals to inform

practice surrounding dental neglect. Additionally, increasing interdisciplinary care between the social work and dental professions can help to mitigate barriers that may be associated with a family's inability to follow through with dental care for the child and result in an inappropriate referral to child protection services.

Finally, another factor identified by several participants was the fact that the state definitions of neglect are not necessarily congruent with the AAPD definition, and that dental neglect is not necessarily operationalized. As noted by Burgette et al. (2020) at the time of research, all US jurisdictions had child neglect laws, but only eight specified failure to seek dental treatment as child neglect, and none adopted the American Academy of Pediatric Dentistry's definition of dental neglect. In the states where dental neglect is not specified, it would be important to understand how dental neglect is subsequently addressed.

To create policy and practice surrounding dental neglect, there must be efforts between child welfare and dental professional institutions to work with states to create a definition of neglect that incorporates the concept of dental neglect that identifies the potential serious harm that can result from untreated dental caries.

Limitations

This study has several limitations. Primarily, when disseminating a voluntary survey, participants are a self-selecting population, and therefore, are subject to response bias. For example, individuals who elect to participate may have strong opinions of the subject matter and may not be representative of the entire population. In addition, as the subject is of sensitive quality, i.e., child maltreatment, participants may respond in a socially desirable manner, as opposed to how they may behave in practice.

Secondly, while the chosen sampling strategy was necessary to reach the target population, it also limited the generalizability and potential representativeness of the sample population as it made use of a non-random sampling method. Furthermore, while all the eligible schools were contacted to participate, generalizability was not likely. This is further compounded by the small sample size of the research study which again limited generalizability.

Thirdly, the research did not consider the individual participants' perceptions, experiences of and attitudes towards dentistry in general. The participant's ideas and values about dentistry may have impacted the way that the participant rated the dental neglect vignette.

Additionally, the study was narrow in scope as it only focused on dental neglect pertaining to the Master of Social Work curriculum. The study did not consider how dental neglect was incorporated into the Bachelor of Social Work curriculum or doctoral programs, nor did it consider workforce training that may include dental neglect. Therefore, the results can only be applied within a specific context.

Finally, none of the vignettes indicated the race of the child as it was desired for the comparison between types of child abuse and neglect to occur within relative isolation. Jones (2015) found that when controlling for poverty and other risk factors, African American, Native American, and Multiracial children were less likely to be assigned to family assessment responses compared to Caucasian children for some years in the time frame of the conducted study. As the vignettes in the current survey did not address the race of the child, it cannot be stated how race may have potentially impacted the action taken by faculty members.

Future Research

Dental neglect is an under-researched subject with even less attention toward the interaction between dental neglect and child welfare. This study aimed to study how dental

neglect is approached in the child welfare realm. This research study provided information on the way in which dental neglect is conceptualized in one area of the social work profession, i.e., MSW education. Future research may consider exploring attitudes, values, knowledge, and practices surrounding dental neglect within other veins of social work education, such as faculty of BSW and doctoral programs, as well as student perceptions in MSW, BSW and doctoral programs. Such research would add to the knowledge of how dental neglect is conceptualized across the broader social work educational landscape.

Additionally, these same concepts may be applied to the greater social work profession, such as surveying individuals who screen child welfare reports, child welfare professionals currently in practice, and policies of child welfare organizations. This would enable professionals to add to the knowledge of how dental neglect is managed across the professional workforce.

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Appendix

SURVEY CONSENT INFORMATION

As a social work instructor or professor of child welfare at the MSW level, you are invited to complete a survey regarding your attitude, perception and knowledge of pediatric dental neglect. The purpose of this study is to generate a better understanding of child welfare educators' attitudes, perceptions and knowledge of pediatric dental neglect. In addition, the purpose of this study is to generate a better understanding of child welfare education. Therefore, as an MSW child welfare social work instructor or professor at a college or university in the United States, you have been selected for inclusion in this study.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY

Your participation in this study is completely voluntary. Your participation in this study will require the one-time completion of an anonymous survey on your attitudes and beliefs. The survey is expected to take approximately twenty minutes to complete, and all responses are anonymous. That is, you will not be asked to provide any potentially identifying information and your responses cannot be linked back to you.

RISKS

We know of no risks to you for participating in this study, as all information provided will remain strictly anonymous. This study poses no more risk than that you experience in day-to-day life. You may choose not to participate in this study prior to or at any time during your participation, you can skip any questions that you wish not to answer, and you may end the survey at any time by simply exiting the web link.

BENEFITS

The responses from this study will be used to explore ways that dental neglect can be better incorporated into the child welfare curriculum. This understanding has significant potential for influencing the development and modification of education surrounding dental neglect and the way in which we prepare social workers to face dental neglect in a child welfare setting.

PROTECTION

All information and data collected from you through your participation in this study will remain strictly anonymous. No potentially identifying information will be collected from you. The researchers will keep all study materials (e.g., collected data) on a password-protected computer. No one other than the principal investigator and the co-principal investigator will be able to access the data collected from this study. For analyzing and reporting findings, all demographic information will be summarized to further protect the human subjects in this study. Any university-related information will be aggregated and will not be reported in publications yielded from this project.

COMPENSATION

There is no participant compensation for participation in this study.

RESEARCHER CONTACT INFORMATION

If you have questions at any time about the study or its procedures, you may contact the doctoral candidate or the dissertation chair.

Doctoral candidate: Katheryn Goldman DMD, MPH, ABD: kgoldm2@mail.yu.edu You may also contact the dissertation chair Charles Auerbach, Ph.D., LCSW: auerbach@yu.edu

By selecting "I AGREE to participate in this study," you are agreeing to participate in this study. Your participation is completely voluntary, and you can terminate your involvement in this study at any time by simply exiting this window. Thank you for your time and have a great day.

o I AGREE

SECTION I The following are case vignettes that deal with cases of suspected child maltreatment. Please read each vignette and answer the associated questions.

For the purpose of the subsequent questions:

"**Investigation response (IR)** (also called the traditional response or high-risk assessment). These responses involve gathering forensic evidence and making a formal determination (substantiation decision) of whether child maltreatment has occurred or if the child is at risk of abuse or neglect. In CPS systems with DR, IR is generally used for reports of maltreatment that occurs in institutions, the most severe types of maltreatment (e.g., serious physical harm, sexual abuse), and those that may involve the legal or judicial systems. **Alternative response** (AR) (also called an assessment response or family assessment response). These responses—usually applied in low- and moderate-risk cases—typically do not require a formal determination or substantiation of child abuse or neglect or the entry of names into a central registry" (Child Welfare Information Gateway, 2020).

The parents regularly left their 6-year-old child alone inside the house after dark to go out and socialize at a local bar. Often, they did not return until midnight. On one occasion, the child started a small fire.

	Seriousness of Event									
	1 Not At All Serious (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Extremely Serious (10)
Based on the information you have provided, how serious is this incident?	o	o	o	o	o	o	o	o	o	o

The parents regularly left their 6-year-old child alone inside the house after dark to go out and socialize at a local bar. Often, they did not return until midnight. On one occasion, the child started a small fire.

	Extent the Case Constitutes Neglect									
	1 Definitely No (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Definitely Yes (10)
In your own professional judgment, does the incident described above constitute neglect?	o	o	o	o	o	o	o	o	o	o

How would you proceed with the case?

- o Family Assessment Response
- o Investigation Response

The parents ignored the fact that their 10-month-old child was obviously ill, crying constantly and not eating even after being advised by their pediatrician to take the child to the hospital. When they finally brought the child to a hospital, he was found to be seriously dehydrated.

	Seriousness of Event									
	1 Not At All Serious (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Extremely Serious (10)
Based on the information you have provided, how serious is this incident?	o	o	o	o	o	o	o	o	o	o

The parents ignored the fact that their 10-month-old child was obviously ill, crying constantly and not eating even after being advised by their pediatrician to take the child to the hospital. When they finally brought the child to a hospital, he was found to be seriously dehydrated.

	Extent the Case Constitutes Neglect									
	1 Definitely No (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Definitely Yes (10)
In your own professional judgment, does the incident described above constitute neglect?	o	o	o	o	o	o	o	o	o	o

How would you proceed with the case?

- o Family Assessment Response (1)
- o Investigation Response (2)

In no more than 100 words, please describe why you chose a Family Assessment Response or Investigation Response._____

A five-year-old child with a history of significant pain and infection associated with untreated dental decay has presented for multiple emergency dental visits without presenting for follow-up care. The parents have been informed of, and demonstrated understanding of, the severity of the child's condition and the importance of follow-up care. Reasonable accommodations have been made to assist the family with follow-up appointments, including transportation. The cost of treatment is fully covered by the family's insurance, yet they continue to miss scheduled appointments.

	Seriousness of Event									
	1 Not At All Serious (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Extremely Serious (10)

Based on the information you have provided, how serious is this incident?	o	o	o	o	o	o	o	o	o	o

A five-year-old child with a history of significant pain and infection associated with untreated dental decay has presented for multiple emergency dental visits without presenting for follow-up care. The parents have been informed of, and demonstrated understanding of, the severity of the child's condition and the importance of follow-up care. Reasonable accommodations have been made to assist the family with follow-up appointments, including transportation. The cost of treatment is fully covered by the family's insurance, yet they continue to miss scheduled appointments.

	Extent the Case Constitutes Neglect									
	1 Definitely No (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Definitely Yes (10)
In your own professional judgment, does the incident described above constitute neglect?	o	o	o	o	o	o	o	o	o	o

How would you proceed with the case?

- o Family Assessment Response (1)
- o Investigation Response (2)

In no more than 100 words please describe why you chose a Family Assessment Response or Investigation Response._____

A teacher reported that a 11-year-old student disclosed that on one occasion, an adult known to the family and the student engaged in sexual intercourse. The adult told the child that it is a lesson that grownups teach children to become adults.

	Seriousness of Event									
	1 Not At All Serious (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Extremely Serious (10)
Based on the information you have provided, how serious is this incident?	o	o	o	o	o	o	o	o	o	o

A teacher reported that a 11-year-old student disclosed that on one occasion, an adult known to the family, and the student engaged in sexual intercourse. The adult told the child that it is a lesson that grownups teach children to become adults.

	Extent the Case Constitutes Abuse									
	1 Definitely No (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Definitely Yes (10)
In your own professional judgment, does the incident described above constitute abuse?	o	o	o	o	o	o	o	o	o	o

How would you proceed with the case?

- o Family Assessment Response
- o Investigation Response

A 20-year-old woman, five months pregnant, brought her 19-month-old child to the emergency room with facial bruises and swelling. X-rays revealed old, healing rib fractures. The mother reported that the injuries were the result of a beating by the child's father, who had been angered by her crying.

	Seriousness of Event									
	1 Not At All Serious (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Extremely Serious (10)
Based on the information you have provided, how serious is this incident?	o	o	o	o	o	o	o	o	o	o

A 20-year-old woman, five months pregnant, brought her 19-month-old child to the emergency room with facial bruises and swelling. X-rays revealed old, healing rib fractures. The mother reported that the injuries were the result of a beating by the child's father, who had been angered by her crying.

	Extent the Case Constitutes Abuse									
	1 Definitely No (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 Definitely Yes (10)
In your own professional judgment, does the incident described above constitute abuse?	o	o	o	o	o	o	o	o	o	o

How would you proceed with the case?

- o Family Assessment Response
- o Investigation Response

SECTION II For the purpose of the next subset of questions:

The American Academy of Pediatric Dentistry defines dental neglect as the "willful failure of parent or guardian to seek and follow through with treatment necessary to ensure a level of oral health essential for adequate function and freedom from pain and infection" (AAPD, 2020, p.16).

Are you familiar with the above definition of dental neglect?

- o Yes
- o No

Do you feel comfortable identifying cases of dental neglect in clinical practice?

- o Never Comfortable
- o Rarely Comfortable
- o Sometimes Comfortable
- o Often Comfortable
- o Always Comfortable

Please respond in no more than 100 words: What makes you comfortable or uncomfortable about identifying dental neglect?_____

Please describe the extent to which you agree with the following statement:
It is difficult to identify dental neglect in clinical practice.

- o Strongly agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Strongly disagree

In clinical practice, how many cases have you managed involving dental neglect?
Please type the number below. If you have never managed a case, please type 0.

_____

Do you feel comfortable managing cases of dental neglect in clinical practice?

- o Never Comfortable
- o Rarely Comfortable
- o Sometimes Comfortable
- o Often Comfortable
- o Always Comfortable

Please respond in no more than 100 words: What makes you comfortable or uncomfortable about managing cases of dental neglect?_____

Have you had clinical training specific to dental neglect?

- o No Clinical Training
- o Insufficient Clinical Training
- o Sufficient Clinical Training

Have you had educational training specific to dental child neglect?

- o No Educational Training
- o Insufficient Educational Training
- o Sufficient Educational Training

Do you feel you have had sufficient educational and clinical training to teach about dental neglect?

- o Strongly agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Strongly disagree

Do you feel you have had sufficient educational and clinical training to teach about dental neglect?

- o Strongly agree
- o Somewhat agree
- o Neither agree nor disagree
- o Somewhat disagree
- o Strongly disagree

(*Skip to Relevance: Do you feel you have sufficient education and clinic training to teach about dental neglect?=Strongly agree)*

If you feel you do not have sufficient training, would you be willing to receive further training?

- o Yes
- o No

How relevant is dental neglect to the child welfare curriculum?

- o Very Relevant
- o Somewhat Relevant
- o Neither Relevant or Irrelevant
- o Irrelevant

How often is dental neglect discussed in your child welfare curriculum?

- o To a Great Extent
- o Somewhat
- o Very Little
- o Not at All

In your child welfare course dental neglect is taught as:

- o Its own specific subset of child neglect
- o Combined with medical neglect

SECTION III Participant Demographics

What is your highest level of education?

- o Bachelor's degree in social work
- o Bachelor's degree in non-social work discipline
- o Master's degree in social work
- o Master's degree in non-social work discipline
- o Ph.D. in social work or DSW
- o Doctoral degree in non-social work discipline

Are you of Hispanic, Latino or of Spanish origin?

- o Yes
- o No

Of which race do you identify?

- o American Indian or Alaska Native
- o Asian
- o Black or African American
- o Native Hawaiian or Other Pacific Islander
- o White

What is your age? *Please type your age in years.*

_____

Of which gender do you identify?

- o Male
- o Female
- o Non-binary/third gender

How many years of experience do you have working in child welfare? *Please enter number of years and round to the nearest year.*

_____

How many years of experience do you have educating about child welfare? *Please enter number of years and round to the nearest year.*

_____

Using what instructional format do you teach child welfare?

- o Didactic
- o Field Placement
- o Both

Do you have experience supervising child welfare staff?

- o Yes
- o No

Please select your faculty status:

- o Full-time
- o Part-time

SECTION IV Institution Demographics

Does your MSW program participate in a Title IV-E partnership?

- o No
- o Yes

Does your MSW program offer a concentration in child welfare?

- o Yes
- o No

How large is your affiliated college/university?

- o Less than 5,000 students
- o 5,000 – 15,000 students
- o Greater than 15,000 students

Is your university/college public or private?

- o Public
- o Private

Does your institution have an affiliated dental school?

- o Yes
- o No

Where is your institution geographically located?

- o Northeast
- o Midwest
- o West
- o South

In what type of region is your institution located?

- Urban
- Rural
- Suburban

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Feng, J. Y., & Levine, M. (2005). Factors associated with nurses' intention to report child abuse: A national survey of Taiwanese nurses. *Child abuse & neglect, 29*(7), 783–795. ****Vignettes adapted from this study with the author's permission.