Assessing child abuse: "We need to talk!"

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ABSTRACT

Background

This discussion paper adds to the recent critical debate concerning retrospective measurement of childhood abuse and adverse experiences. A series of recent articles found only modest overlap of prospective informant-based records with retrospective self-report questionnaires, with biases evident in the latter. However, this literature has omitted the use of investigator-based interviews as an alternative retrospective tool for triangulation of measurement. Validated interview approaches can ascertain accurate data using expert scoring that can be used to test both dose-effect and specificity analyses for further research and treatment purposes.

Objective

Arguments for the retention and further promotion of intensive interview measures for retrospective assessment of childhood neglect and abuse in relation to lifetime clinical outcomes are presented, with illustrative analyses.

Method and results

A network analytic approach is outlined, with six types of childhood abuse or neglect experiences scored via a well-validated interview (the Childhood Experiences of Care and Abuse). This indicates distinct pathways between types of neglect and abuse, but also from more common emotional abuse (antipathy, critical parenting)

through to more pernicious psychological abuse (coercive, sadistic control) involving physical abuse or sexual abuse pathways. This is supplemented by a case vignette to illustrate the different pathways indicated.

Conclusions

The interview approach gives victims a voice with their narrative (chance to talk) needed for better understanding of the specific dynamics of child abuse and neglect and for an entry into psychotherapeutic work. We need to ensure that such methods are retained in the research and practitioner portfolio of measurement tools.

Keywords: Child abuse, parental neglect, CECA, interview measure, retrospective, lifespan.

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Introduction

Child neglect and abuse is undoubtedly a primary, distal cause of psychiatric disorder (Nanni, Uher, & Danese, 2012) as well as implicated in later life physical illness and earlier mortality (Felitti et al., 1998; Widom, Czaja, Bentley, & Johnson, 2012) and damage transmitted intergenerationally (Bifulco et al., 2002). Recent meta-analytic findings show child maltreatment is consistently related to a range of clinical disorders, including anxiety disorders (Li, D'Arcy, & Meng, 2016), bipolar disorders (Agnew-Blais & Danese, 2016), borderline personality disorder (Winsper et al., 2016), dissociative disorders (Dalenberg & Carlson, 2012), depressive disorders (Infurna et al., 2016), eating disorders (Caslini et al., 2016), post-traumatic stress disorder (Brewin, Andrews, & Valentine, 2000), psychotic disorders (Varese et al., 2012), and substance use disorder (Hughes et al., 2017). The range of clinical outcomes is constantly expanding.

However, a few recent influential studies in the USA, New Zealand and UK have once again cast doubt on measurement type and timing in relation to child abuse investigation, and on how child maltreatment can be measured accurately in adults retrospectively (Baldwin, Reuben, Newbury, & Danese, 2019; Newbury et al., 2018; Reuben et al., 2016). These have found anomalies when comparing prospective case record and retrospective self-report assessment of childhood abuse which has important implications for effective research in this area. A systematic review argues that no one measure is superior and sufficient for use alone (Sainia, Hoffmann, Pantelisa, Everalla, & Bousman, 2019).

Retrospective investigation of child abuse is important. In contemporary Western Society whilst there has been success in improving safeguarding for children, previous generations have suffered with much undisclosed and untreated abuse, although exact rates of such abuse by cohort are not well documented. Recent government enquiries into organised historical abuse indicates its widespread nature, e.g., UK Independent Inquiry into Sexual Abuse (IICSA, 2017), Australian Royal Commission into Institutional Responses to Child Sexual Abuse (RCIRCA, 2017). There is no doubt that a significant portion of the adult population carry with them the burden of prior abuse with few formal mechanisms for uncovering such abuse on a population basis, and for offering treatment and reparation on an individual basis. To do this we need a variety of assessment tools, and to understand the direction of error in each. This includes questionnaire which can give tentative indication of likely maltreatment through self-report, case record which provide contemporary practitioner or other informant information but also those interviews which can provide investigator-based narrative information with an extensive range of experience and time encompassed. This latter has been largely excluded from recent methodological tests of instrument validity.

There are however relatively few standardised retrospective interviews on childhood neglect or abuse, and few in metanalytic studies. The most established are the Childhood Trauma Interview (Bernstein, Fink, Handelsman, Foote, & et al., 1994) and the Childhood Experience of Care and Abuse (CECA) (Bifulco, Brown, & Harris, 1994). The latter is used here to illustrate the arguments posed in this paper and to present some new correlational data on abuse. The CECA measure has proven to be reliable, valid and an acceptable method of assessment for research over three decades

for individual assessment and family studies in the UK (Bifulco, Brown, Lillie, & Jarvis, 1997; Bifulco et al., 2002; Bifulco et al., 2014; Brown, Craig, Harris, Handley, & Harvey, 2007). It has also been used effectively internationally (Berthelot et al., 2015; Harkness & Wildes, 2002; Kaess et al., 2011; LoCascio et al., 2018). This paper formulates arguments for the retention and further promotion of intensive interview measures such as the CECA for retrospective assessment of childhood neglect and abuse in relation to lifetime clinical outcomes.

To argue this case we will examine:

(i) The recent studies of reliability and validity of measurement of childhood experiences which cast doubt on retrospective assessment and how interviews could add to findings,

(ii) Models involving both dose-effects (e.g., Adverse Childhood Experiences, ACEs) and specificity effects (e.g., damage from single trauma or maltreatment experiences) to show how different measures can tackle these,

(iii) The associations between types of neglect and abuse experiences to look at pathway effects utilising new analysis of existing interview data to illustrate abuse pathways only feasible with intensive measures.

Identifying the best use of different measurement approaches for different study purposes as well as for clinical assessments, will aid in further developing investigation into childhood abuse. It is deemed important to include those intensive which are conducted through talking with the respondent to gain fuller contextual information.

Validity of retrospective measures

A recent study (Reuben et al., 2016) looked at the problems of subjective response and memory issues in reporting of child abuse and adversity by questionnaire, with significant implications for patterning of health findings when compared with contemporary practitioner records and observations. Utilising the Dunedin longitudinal sample in New Zealand (Newman, Moffitt, Caspi, Magdol, & et al., 1996) analysis showed the childhood records had only modest correlation with subjective retrospective questionnaire report. The records proved better predictors of physical health and objective markers of functioning such as cognitive decline. However, the retrospective questionnaires were more highly associated with self-reported psychopathology and problem relationships. The authors interpret the analysis as indicating both underestimation and overestimation errors in the subjective questionnaire methods as well as confounding impacts of individuals'response styles and of their dispositions and attitudes toward answering questions concerning life history. The authors warn that 'primary care clinics using retrospective ACE reports to screen for high risk patients may overlook individuals at risk from ACEs that they experienced but do not remember' (Reuben et al., 2016, p. 18). Similar studies indicate type II errors of under-reporting common to retrospective self-report (Widom, Czaja, & DuMont, 2015).

Doubt is thus cast on sole usage of retrospective self-report approaches due to subjective error and memory bias, but other potential shortcomings of brief questionnaires of childhood adversity deserve comment. The ACE questionnaire (Felitti et al., 1998) only includes one item per adverse experience and only 'yes/no' responses, which allows for no assessment of the severity of individual experience nor

multiples of such expereinces, for example from different parents or perpetrators. Whilst other measures of childhood adversities include Likert-type scales, they do not make allowance for individuals' uncertainty about whether their past experiences constitute neglect or abuse. Some of those scoring 'no' maybe unsure whether their remembered experiences constitute abuse. This has led to erroneous study group comparisons intended to be abuse free (Widom & Morris, 1997). Most researchers and clinicians who utilise interview methods will know that it can take repeated probing of events to ascertain full detail and context of experience. Similarly contemporary informant records whilst not having issues of memory-bias are nevertheless flawed. They may be incomplete (for example, the Dunedin study records showed no sexual abuse compared to questionnaire) (Reuben et al., 2016) or include biased parental reporting as shown in other contexts (Fisher, Bunn, Jacobs, Moran, & Bifulco, 2011). Also in naturalistic settings such case records are rarely available in cases of undisclosed abuse.

Similar error was reported in the longitudinal Environmental Risk (e-risk) cohort in the UK using the Childhood Trauma Questionnaire (CTQ) self-report used retrospectively at age 18 compared with prospective childhood mother-informant information supplemented by research observation and assessment (Newbury et al., 2018). This similarly showed only slight to fair agreement between the two assessments for childhood abuse, although both related to clinical disorder at age 18, with strongest associations found for the self-report measures.

A systematic review and meta-analysis of 16 similar studies, mainly in the USA, of prospective and retrospective childhood maltreatment also found poor agreement with little overlap in positive identification of abuse (Baldwin et al., 2019). However,

this analysis also included interview assessments which showed higher agreement than self-report questionnaires in these studies. Details of the types of interview are not included, although they seem wide-ranging including spoken questionnaires. It remains to be seen whether better agreement may be shown with investigator-based interviews.

Intensive interviews such as the CECA have been used in research projects in a range of settings internationally and included in meta-analyses (Infurna et al., 2016; Nanni et al., 2012) but have been relatively excluded from recent validity studies comparing measurement prospectively versus retrospectively with subjective versus objective assessment. This may be due to the time-intensive, training-dependent and therefore relatively costly nature of the interview approach. But it may also be because the 'investigator-based' approach of the CECA has been misunderstood as a potential source of objective assessment due to the common view that interview methods only reflect subjective reporting. Yet through the implementation of 'expert' rating used on narrative evidence objective assessment can be made. The method can reduce the risks implied in self-reporting of childhood experiences through pre-selected questionnaire items due to errors of social desirability, misattribution of meanings for sensitive terms such as 'abuse' or 'neglect', of subjective normalization of abusive experiences, or through biases from personal dispositions. This is because the interviewer questions for factual information, exemplified through behaviour and events, which is then scored after the interview relatively unaffected by the respondents' own beliefs about their experience.

Investigator-based interview approaches process subjective narrative through the expert researcher/ practitioner who is trained to identify and score severity of different

childhood adverse experiences based on detailed and probing questioning. This method is accepted in clinical diagnosis (questioning until sufficient detail of symptoms is provided) and forensic investigation (questioning about facts until a criminal incident is clear). In research interviews it can determine type, severity and multiplicity of experience, including that retrospective, with suitable 'scaffolding' of response to aid reporting. For instance asking about a 'typical day' at a certain point in childhood before a focus on neglect, or asking about relationship with parents before identifying emotional abuse, or questions about disciplinary practices before broaching physical abuse questions. These aids to memory can then be used to further specify experience within relevant contexts as well as encouraging more detailed factual reporting.

Dose-effects and specificity effects

ACE approaches indicating dose-effects for varied health outcomes later in life are well established and have widened the impacts of childhood abuse into public health arenas (Felitti, 2002; Felitti et al., 1998), supporting the cumulative risk hypothesis on the impact of child maltreatment on health. These dose-effects have been well replicated, even using more intensive tools or indices of trauma focused on the individual child (Bifulco, Moran, Baines, Bunn, & Stanford, 2003; Greeson et al., 2014). Yet ACE studies are limited in reflecting the multiples of abuse included (e.g. of the same types of abuse by different perpetrators) but also by including family dysfunction items which are given equal weighting to abuse trauma experience. Thus, separation by parent (e.g. by divorce) is counted equally in the overall score of adversity to that of child sexual abuse regardless of the particular context of either. This is despite other analyses utilising the CECA which show differential odds ratios

for adolescent clinical disorder of only 1.81 for parental separation and as high as 5.03 for physical abuse (Bifulco et al., 2002; Schimmenti & Bifulco, 2015). Greater refinement of adverse childhood experience indices is therefore recommended.

Differential specific effects also hold, with single abuse experiences capable of substantial impacts on mental health and in relation to different disorders. Thus CECA analysis in high-risk community London adolescents show different odds ratios (OR) for overall clinical disorder (anxiety, depression, substance use, and/or conduct/antisocial disorders), of OR=5.8 for neglect and OR=7.88 for sexual abuse (Bifulco et al., 2002), while an OR as high as 17 was found for the specific relationship between role reversal (or parentification) and deliberate self-harm (Bifulco et al., 2014). Single self-report item scales with no assessment of severity or multiplicity of experience cannot provide such analyses. To disregard the importance of single severe experiences of childhood abuse would overlook important causes of psychopathology and be a disservice to victims. However other models of abuse impact involving patterning or pathways may be important, and these are discussed below.

Associations between types of abuse pathways

Understanding how abuse experiences relate to each other can be important for preventative work, for example reducing the dose-effects for re-victimisation or preventing a cascade of maltreatment (Finkelhor, Ormrod, & Turner, 2007). To investigate such effects a relatively wide range of abusive experience needs to be included, those from different perpetrators and those sequenced over time to investigate distinct pathways.

To provide an example here, in a new secondary analysis of 160 high-risk adolescent and young adult CECA interviews in the UK, a correlation network approach was undertaken for this article based on CECA overall scale scores on failures of care (antipathy, neglect, role reversal) and abuse (physical, sexual, psychological), which yielded new information on associations between different maltreatment experiences. This sample comprised offspring of previously studied vulnerable mothers, a community-based sample, equal male and female age 16-30 (Bifulco et al., 2014; Schimmenti & Bifulco, 2015).

Correlation network analysis makes use of partial correlations rather than the raw correlations or covariance matrix used in factor analysis, and it provides powerful and novel computational methods for modelling and visualizing the relationships between the main components of abuses and failures of care examined by the CECA [antipathy (critical parenting), neglect, role reversal (parentification), and physical, sexual, and psychological abuse (sadistic coercive control)]. By using this approach, we were able to infer potentially causal links among the different experiences of child abuse and neglect, by inferring their relationships using a Bayesian network that mold the overall dependence structure of multiple variables and visualize it as a Directed Acyclic Graph (DAG; (Rohrer, 2019; A. Schimmenti & Sar, 2019). In DAGs the analyzed variables (nodes) are linked by arrows (edges) that are acyclic (because they do not allow for cyclic paths in which variables become their own ancestors) and represent the directions of the effect as identified in the networks. The arrows in the DAG imply a direct cause and a directed pathway and a causal relationship from one variable to another.

To give further detail, we first used the four-point severity scales of the CECA to estimate and regularize via a graphical LASSO (an algorithm that estimates the precision matrix from the observations; (see Friedman, Hastie, & Tibshirani, 2008) the partial correlation network of abuses and failures of care experienced by each of the 160 high-risk young people that participated in the London study (Schimmenti & Bifulco, 2015). This regularized network was then represented as a graph (see Figure 1) by using the R-package *qgraph* (Epskamp, Cramer, Waldorp, Schmittmann, & Borsboom, 2012). In Figure 1, straight lines indicate positive associations and dotted lines indicate a negative association. The strength of the associations is represented by the thickness of the edge (i.e., thicker lines correspond to stronger associations). Further details on the network analysis (centrality indices, differences between nodes, weight matrix, and so on) are available on request.

Figure 1 about here

Figure 1 shows that the experiences of child maltreatment are associated with each other. Specifically, it indicates that abuses (physical, psychological and sexual) are all associated in the network. Physical and sexual abuse are strongly associated with each other and linked with episodes of psychological abuse (coercive "mind-control") of the child. Similarly, failures of care (antipathy, neglect, and role reversal) are strongly associated in the network. Furthermore, the network shows that parental antipathy toward the child is strongly linked with physical abuse, whereas neglect is associated with episodes of sexual abuse. Notably, sexual abuse was inversely related to role reversal, suggesting that child sexual exploitation and child parentification (forcing the child to assume adult responsibilities in terms of household management and emotional well-being of his or her parents) are two distinct and somewhat

opposite domains of child maltreatment. This seems to disconfirm the common hypothesis that high levels of parentifying the child in the home lead to sexual abuse at its extreme. It suggests instead that childhood experiences of sexual abuse are more frequently related to the neglect of the child and to the fact that being left alone uncared for increases the risk that the child becomes the object of sexual perverse attentions from pedophiles (outside the home) or other disturbed family members.

To better understand the relationships between different forms of abuse and failures of care, we estimated a Bayesian network by using the hill-climbing algorithm available in the R-package *bnlearn* (Scutari, 2010), also perturbing and restarting the system to more reliably compute the structure of the network, and visualized it as a DAG (Figure 2). Caution is of course needed when directions of associations are predicted with cross-sectional data, but this procedure maintains its usefulness for hypothesis development, especially when examining complex dynamics such as those involved in child abuse and failures of care, where individual differences are frequent and interactions between different types of childhood maltreatment are expected. Thicker edges in Figure 2 indicate stronger associations. The probability of each prediction in the current DAG is available on request.

Figure 2 about here

The analysis in figure 2 shows potential cascading of the different experiences of child maltreatment, amenable to theoretical interpretations and for informing preventative action. The DAG shows in relation to emotional maltreatment, that the more common category of antipathy (critical parenting) can precipitate into the rarer and more lethal psychological abuse (involving sadistic coercive control). This further

shows two routes from antipathy, one through role-reversal, neglect and sexual abuse to psychological abuse, the other through physical abuse to psychological abuse, both directly and via, sexual abuse.

The DAG thus suggests that the most extreme form of psychological abuse of the child by parents according to the CECA (which include episodes of humiliation, cognitive disorientation, corruption, intentional deprivation, terrorization of the child in the context of a domineering, highly controlling, and often sadistic relationship) starts from parental antipathy (hostility and rejection of the child) that can then assume the form of harsh and violent punishments (the 'physical abuse' pathway) or the form of exploitation and neglect of the child (the 'neglect/role reversal' pathway). The theme here is of parental dominance and over-control. Also, the DAG results inform us that these pathways may converge in the experience of sexual abuse, where a parent maybe totally disinterested in the child except to satisfy dysregulated impulses and disordered needs (Schimmenti & Caretti, 2016). The coercive control implied in psychological abuse can then be used by these parents to evade disclosure, and to further maintain a position of control and exploitation of the child.

Even though a correlation network approach can be also used with self-reported data, it is almost impossible to ground hypothesis development and a comprehensive understanding of research findings on child abuse and neglect without the narratives of episodes supporting the researchers' theoretical considerations. To substantiate the potential reliability of the developmental hypothesis of child abuse and neglect emerging from intensive interviews and consistent with our network analysis and DAG findings, we summarize a brief case vignette from the narrative of the same

dataset. [The name of this research participant is changed and details of the cases are omitted or disguised to protect confidentiality].

Felicity: from antipathy to psychological abuse via physical abuse.

Felicity reported experiencing high levels of antipathy and physical abuse from both her mother and stepfather over a number of years. This mainly occurred after her parents separated due to domestic violence and her mother moved in with her new stepfather. Two further children were born, the family then comprising four children with Felicity and her brother around 8 years older. Her mother seemed to think the two older children (Felicity and her brother) were out of control and therefore applied harsh sanctions. This was mirrored by the stepfather She was hostile to Felicity: 'she always criticised me, she humiliated me. She distressed me.' Moreover, when Felicity was seen to have done something wrong her mother would beat her.' As far back as I remember I can remember being hit. Twenty or 30 times - I was really bruised a lot, from the age of 10. Mum tied us up and beat us for hours – that was when I was 7. My feet and hands and tops of legs and arms were tied to my waist with curtain wire. She used belts or sticks, and I got punched in the face, punched in the head'. Physical abuse was only one of the way Felicity's domineering mother controlled and humiliated her. The stepfather was also physically abusive. When Felicity entered late childhood, her mother also resorted to psychologically abuse. For example, she would buy Felicity a Christmas present, let her see it and then promptly take it away and say she could not have it. She took away Felicity's pet, a dog, with no warning, no explanation and had it put down. She would make Felicity eat spicy foods like hot chillies: 'She used to do things like that with chillies – she used to put them in my mouth and they burned severely – I

remember crying and screaming and she held the top of my head and my jaw so I could not spit it out.'

This vignette shows excessive maternal control and dominance in managing her elder daughter who she viewed as bad and in need of punishment. This is echoed by the stepfather's behaviour.

Felicity: from antipathy to sexual abuse via neglect

Alongside hostile parenting, including scapegoating, Felicity was neglected at home. Neither her mother or her stepfather spent time with her, Felicity would just sit quietly in front of the TV. Her mother was often out in the evenings: 'I never saw her that much. She didn't pay that much attention to me. She didn't really give me the support and help I needed'. Her stepfather was equally neglectful, so there was no adult she could go to in the household for support. There was also role reversal with Felicity having to fend for herself: 'I took care of myself a lot, everything from age 13, cleaning, cooking, washing my own clothes. Mum just told me to get on with it.' The condition of growing up in a neglectful but threatening household led Felicity to, run away from home aged 14. She lived on the city streets for some weeks and in that time was raped by someone she met. She became pregnant. She was located by social services and taken into foster care. The police initiated a court case against her rapist but found insufficient evidence to take it to court. Felicity did have to endure difficult police proceedings in talking about the rape. Felicity had a termination and remained in local authority care.

This aspect of Felicity's experience shows how in escaping from a hostile and neglectful household she became prey to an abuser outside the home which led to

sexual abuse. This through lack of the usual care and protection that parents should provide.

Whilst our analyses require further replication, they are consistent with the narratives reported, and are amenable to further inspection of qualitative data, collected in the same measure with clear implications for intervention in families where hostile interactions from parent to child can under some conditions cascade to more abusive scenarios. They also provide another approach (through patterning or pathways) to understand the impacts of combinations of abuse complementary to dose-effects or specificity effects.

Conclusions

Effective research requires multiple methods to achieve different aims, particularly in measuring experiences as sensitive and problematic as childhood abuse. Whilst some studies can accommodate cursory measurement, others benefit from detailed ones. Whilst some can utilise contemporary assessment for prospective investigation, others only have retrospective measurement as an option. Varied means of triangulation for the most valid information on such an important issue are necessary. For this we need to ensure that investigator-based interviews are retained in the field with researcher training to include expertise in such methods. This requires skills for both purposive and empathic questioning, attuned listening skills, and reliable categorisation capacity. Such skills will also equip them for a rich understanding of the data gathered and for novel model-generation. Interview assessments also form a natural bridge to psychotherapy and narrative intervention

approaches. A detailed focus on childhood accounts can improve client coherence and aid working through trauma experience.

However, the limitations of interview approaches in terms of their time-intensity and cost need to be considered with sample size and location reduced. Perhaps it is time to consider technological aids to convert investigator-based interviews to online facilities where this might be appropriate or necessary, so to reduce time and costs and potentially increasing range (Bifulco, Kagan, et al., 2019; Bifulco, Spence, et al., 2019). Whilst this may prove more challenging in relation to child abuse issues, where probing questioning has best results, there is no doubt that online scoring and data harvesting is vastly quicker and more efficient. Similarly use of electronic means of meeting rather than face-to-face methods, and electronic capture of interview narrative as transcript can enhance time taken in interview and rating.

Yet, it is critical not to lose sight of narrative methods for investigating abuse experience for research, therapeutic and legal purposes. It also keeps the voice of the victim at the centre of investigation and treatment. This is why with regard to childhood abuse ‘we still need to talk’.

Figure 1. Regularized partial correlation network of Core CECA scores on abuse and failures of care (N=160)

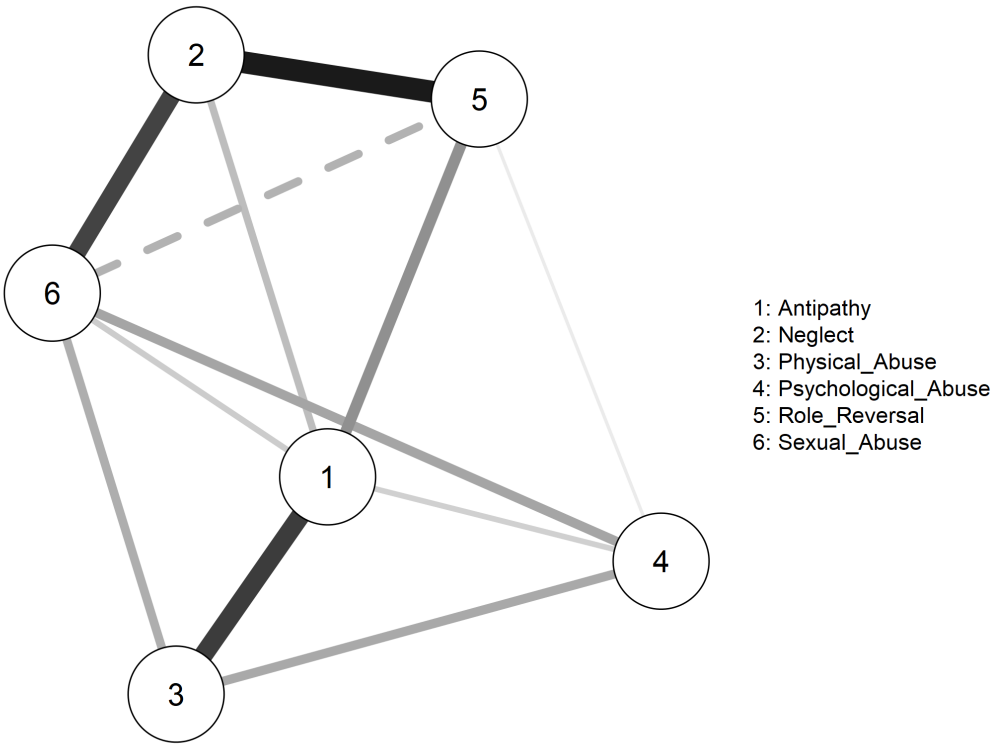
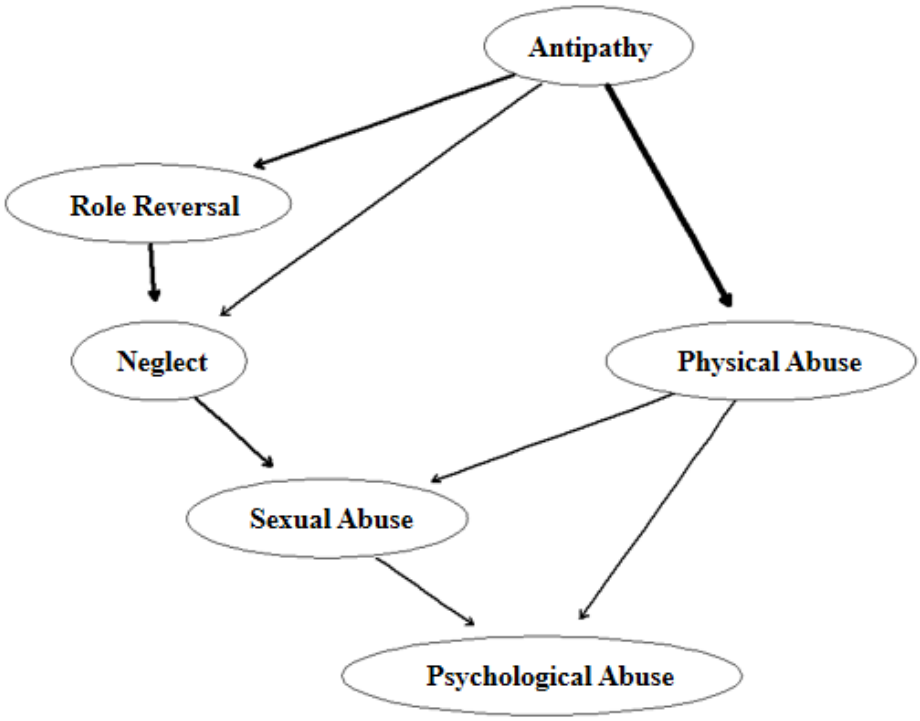


Figure 2. Directed Acyclic Graph (DAG) depicting the causal relationships between experiences of failures of care and abuse



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