

The role of child-keyworker attachment in burnout among Saudi residential staff

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Research on the impact of the keyworker-child relationship on residential staff is scarce. This longitudinal study investigated the potential moderating effects of child and keyworker attachment styles on the link between child behavioural problems and staff burnout and the moderating effects of child attachment style on the link between keyworker attachment style and keyworker burnout. Participants included 261 children and 59 residential child care workers, from 5 orphanages in Saudi Arabia. Five self-report measures were utilised: The Strengths and Difficulties Questionnaire, the Security Scale, the Coping Strategies Questionnaire, the Maslach Burnout Inventory and the Experiences in Close Relationships Questionnaire. Keyworkers caring for relatively non-avoidant children and those with an avoidant attachment style themselves experienced relatively high burnout a year later. Relatively high burnout was also reported by avoidant keyworkers who cared for avoidant and generally insecure children, while anxiously attached keyworkers reported relatively high burnout when they cared for children with any type of insecure attachment style. The present findings highlight essential interpersonal processes involved in the development of burnout in residential child care workers and call for the employment of attachment-focused interventions as measures of burnout prevention.

Keywords: Attachment; Burnout; Residential care; Saudi Arabia.

Research suggests that burnout is common among residential child care workers and identifies main contributing factors, such as lack of institutional and supervisory support, casual contracts, frequent change of institution, low educational attainment and young age (Decker, Bailey, & Westergaard, 2002). An important contributor is the children's challenging behaviours and the underlying difficult emotional states staff are expected to manage. Compounded by lack of appropriate expertise and control over admissions, these can have a detrimental effect on residential workers' mental health and consequently on the quality of child care provided (Whitaker, Archer, & Hicks, 1998). As episodes of challenging child behaviour in residential settings are frequent, personal and intense, it is unsurprising that burnout levels among residential workers are higher than among social workers, therapists and other professionals working with children (Savicki, 2002). Over 80% of child care residential workers report they were assaulted or threatened in the previous year, most of them multiple times, while exposure to such

aggression is clearly linked to the workers' burnout (Winstanley & Hales, 2015). That staff also suffer from conditions akin to burnout, such as compassion fatigue and secondary trauma (Nelson-Gardell & Harris, 2003).

Although the above studies identify the child-worker relationship as a major source of emotional strain for staff, as well as for children, they tend to focus on one particular aspect, the occurrence and management of children's challenging behaviour. Human relationships, however, are complex and multi-layered and for negative behaviours to be understood other critical relationship elements also need to be considered. One such element, relatively neglected in the above literature, is *attachment security*. Investigating the role of attachment security may provide further insights into children's problem behaviour and the workers' capacity to contain it.

Initially developed by Bowlby (1982) and Ainsworth (1970) and later expanded by others (Doyle & Cicchetti, 2017), the term refers to the child's (or adult's) expectation that the caregiver (or an intimate peer) will

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Many thanks to Dr. Hamdi Lemamsha from the University of Bedfordshire for his kind support in translating the attachment measures to Arabic. AS: Contributed in the study design, conducted most of the data analysis and wrote the manuscript. NA: Contributed to the study design, collected the data and conducted some data analysis. The authors have no funding to disclose.

be emotionally available at times of need and that the self will be able to elicit love and care. Attachment security should be thought of as both a *relationship* and an *individual* characteristic rooted in childhood experience, as interactions with caregivers are internalised overtime into mental representations of self and other. The role of those representations is to inform self-regulation and emotion-laden relationships across the lifespan. Contrary to the secure, who tend to be raised by responsive adults, children who systematically experience suboptimal care tend to become insecurely attached, often presenting behavioural problems (Madigan, Atkinson, Laurin, & Benoit, 2013). Those cared for by emotionally distant caregivers tend to become avoidantly attached, those raised by inconsistently available caregivers tend to form an anxious or ambivalent attachment, while those raised by caregivers experienced as frightening tend to develop disorganised attachment. According to research, the attachment system is organised around two fundamental dimensions, anxiety and avoidance (Fraley, Waller, & Brennan, 2000). Adults low on both dimensions are classified as secure, those high on avoidance are classified as dismissing, those high on anxiety as anxious or preoccupied and those high on both as disorganised or fearful.

As looked after children typically suffer significant trauma before they enter residential care, they are very likely to be insecurely attached to their primary carers, unable to properly regulate the self, and predisposed to form insecure bonds with residential workers and peers. Studies suggest that these children tend to respond to others with suspicion, defiance, and often overt aggression, while residential workers become the targets of such behaviours, particularly as they attempt to approach the children and early traumas resurface (Berridge, Biehal, Lutman, Henry, & Palomares, 2011; Zegers, Schuengel, Van IJzendoorn, & Janssens, 2008).

Nonetheless, the child-worker bond is not constrained only by the children's relational difficulties. Dyadic relationships involve two parties and their quality is influenced by both. Although research on residential workers' relating characteristics and their role in the child-worker bond and child behaviour is lacking, studies suggest that attachment experience significantly impacts on an adult's capacity to care for children (Main & Hesse, 1990; Raby et al., 2017). According to these authors, adults who were insecurely attached to their parents in childhood tend to provide inadequate support to their own offspring, "transmitting" attachment insecurity to the next generation. Drawing on their own attachment representations, insecurely attached adults find it difficult to understand and regulate emotional states in themselves as well as in their children.

Adults' attachment experiences also influence their capacity to care for children under their professional care. Insecurely attached teachers use less efficient class management techniques (Morris-Rothschild &

Brassard, 2006) and more aggression (Riley, Lewis, & Brew, 2010) than the securely attached, while those who experienced inappropriate levels of discipline in childhood report a relative emotional distance from their own students (Kesner, 2000). Moreover, Goodman (2010) argues that a fundamental component of attachment security, the ability to reflect on one's own mental processes, determines to a great extent a therapist's capacity to support children with emotional problems. Such therapists are able to contain their clients' chaotic engagement with the world and the pressure it exerts on the therapeutic process. Research on children with disruptive disorder indicates that an increase in post-treatment aggression is a function of their therapists' anxious style of attachment (Muratori et al., 2017).

The above studies suggest that the residential workers' relating capacity, as captured by the construct of attachment style, may play a significant role in the quality of the child-worker bond and the expression of child challenging behaviour, particularly as it interacts with the children's own attachment dispositions. Such an interaction would be expected to impact how residential workers manage the children's behavioural challenges and ultimately the level of occupational stress workers will be under. Previous research has already established a link between attachment style and the well-being of employees in various sectors. Attachment insecurity has been linked to burnout in dementia workers (Kokkonen, Cheston, Dallos, & Smart, 2014), dialysis nurses (Pines, 2004), assisted living carers (Simmons, Gooty, Nelson, & Little, 2009) and security guards (Vanheule & Declercq, 2009). Vanheule and Declercq (2009) present evidence of the buffering role of employee attachment security, as attachment style moderated the effects of responding to a critical incident on burnout. Moreover, studies report that the effects of attachment anxiety were fully mediated by hypersensitivity to social rejection at the workplace (Ronen & Baldwin, 2010) and partially mediated by negative appraisals of team cohesion (Ronen & Mikulincer, 2009), while the effects of attachment avoidance were fully mediated by negative appraisals of organisational fairness (Ronen & Mikulincer, 2009).

Employee attachment insecurity has also been linked to other work-related variables. Compared to the secure, insecurely attached workers report lower job satisfaction and overall well-being (Hazan & Shaver, 1990), more negative coping and work-family imbalance (Harms, 2011), overcommitment and a lower sense of recognition (Meredith, Poulsen, Khan, Henderson, & Castrisos, 2011), limited skills in recruiting social support and stronger intention to leave the job (Richards & Schat, 2011). Employees with high attachment avoidance tend to underutilise their annual holiday entitlement and use work to avoid social interaction, while those with high attachment anxiety are excessively concerned about poor performance and rejection (Hazan & Shaver, 1990).

No study so far has explored the job-specific mechanisms in which residential worker attachment style can lead to burnout.

A significant limitation of research on the link between attachment and burnout in the social services has been its almost exclusive focus on the western world. Considering the harsh conditions in which child residential care is often provided in the developing countries (Sherr, Roberts, & Gandhi, 2017), this gap is important. Scarce economic resources, limited organisational support, deficient professional training, unhelpful cultural prescriptions and extreme child deprivation and trauma are bound to lead to challenging behaviour and difficulties in the establishment of the child-worker bond.

CONTEXT OF THE CURRENT STUDY

Aiming to fill the aforementioned gaps in the literature, the present study involved a sample of residential workers and the children in their care, based on orphanages in Saudi Arabia. In that country, about 180 residential workers care for over 1100 orphan children across 16 institutions run by the Ministry of Social Affairs. Most institutions are concentrated around the cities of Riyadh and Jeddah and consist primarily of apartment-type homes (Ministry of Economy & Planning, 2005). Adoption in Saudi Arabia is rare while foster care is typically restricted to having the child at home during weekends and holidays.

As extended family and kin ties are fundamental in Saudi society, the vast majority of children in care are those born “out of wedlock.” Regarded as “seeds of the devil,” these children experience devastating life-long stigma and social exclusion. They are referred to as *auld-haram* (bastard), are denied the prefix *Al* indicating lineage in Saudi surnames and their prospects of social integration, higher education and marriage are very poor (Ishaque, 2008).

Previous research has shown that Saudi residential workers are ambivalent in their feelings towards the orphans (Sochos & Aljasas, in press). On one hand, they feel obliged to follow Islamic teachings and their own humanity and be compassionate with the children. Islam prescribes that good Muslims should treat orphan children as their own—after all, prophet Muhammad himself was an orphan (Alazhary Sonbol, 1995). On the other, they feel compelled by the clan-based, conservative Saudi society to make an example of the fruits of transgression and keep the children in the margins of social life. In this context, establishing supportive bonds with the orphans may present additional challenges for residential workers.

To the best of our knowledge, no previous study investigated work-related distress among Saudi orphanage workers. However, a small number of studies have involved other types of Arab employees. These have

found that the strongest correlates of burnout among these collectivist workers is the quality of close relationships and work interactions with a socio-emotional focus (e.g. listening, sharing, social support), while these workers are less likely to contact a counsellor about work-related issues (Pines, 2003). If a sense of interpersonal closeness at work is also important for the Saudi orphanage workers, their relationship with the children would be particularly important for the work-related distress they may experience. To address this question, the present study tested the following hypotheses. First, we expected that staff burnout would be linked with child behavioural problems, both concurrently and prospectively, and that the overtime effects of the latter on the former would be moderated by child and staff attachment style. We also hypothesised that child attachment style would moderate the longitudinal effects of staff attachment insecurity on staff burnout.

METHOD

Design

This was a longitudinal study, measuring orphanage staff and child variables at two time points (T_1 and T_2). The interval between the two measurements was 1 year, ensuring that all pairs were given enough time for a bond to develop. In addition to basic demographics, staff variables measured included burnout and adult attachment style while child variables included attachment to the keyworker and behavioural problems.

Participants

Fifty-nine residential staff participated in the study (50 female, 9 male, mean age = 36.9, $SD = 6.99$). The vast majority worked full-time (77%), while 39.2% had only completed primary education, 27.6% had completed secondary, while 33.2% had a tertiary education degree. Over 36% were married, 30% were divorced, 11% were widowed and 22.5% were single. Questionnaires were also completed by 261 children at T_1 (113 males, 148 females, mean age = 11.1, $SD = 2.76$) and 214 children at T_2 (84 males, 130 females, mean age = 11.83, $SD = 2.75$). Attrition was typically due to a child being allocated to a different keyworker, either in the same or a different institution. One hundred and sixty-nine children were in middle childhood (6–12 years) at T_1 and 151 at T_2 ; the number of adolescents (13–17 years) at T_1 was 92 and at T_2 was 63. All participants were recruited from five state-run institutions in the cities of Riyadh, Jeddah and Dammam in Saudi Arabia.

Measures

The following questionnaires were used to measure the study variables:

Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981). This is a 22-item questionnaire measuring three burnout dimensions—emotional exhaustion, depersonalization and personal accomplishment. Items are rated on a 7-point Likert type scale ranging from 0 (never) to 6 (every day). The instrument has been associated with various health and well-being outcomes in different worker groups (Maslach, Schaufeli, & Leiter, 2001) and has been translated and validated in Arabic with samples of health care and education professionals (Alrahbi, 2011; Sabbah, Sabbah, Sabbah, Akoum, & Droubi, 2012). In the current study the Arabic version was used, attaining very good reliability. Cronbach alphas for the whole scale were .84 at T_1 and .81 at T_2 .

Experiences in Close Relationships Questionnaire (ECRQ; Brennan, Clark, & Shaver, 1998). This is a widely used questionnaire of adult attachment, consisting of 36 items measured on a 7-point scale (1 agree strongly to disagree strongly). It is underlain by two factors, *anxiety* and *avoidance*, and has validated in many different cultures (Alonso-Arbiol, Balluerka, & Shaver, 2007; Mallinckrodt & Wang, 2004). Significant evidence has been collected for the instruments' construct, convergent, discriminant and predictive validity in association to numerous relationship and mental health outcomes (Mikulincer & Shaver, 2003). Although ECRQ assesses attachment in couple relationships, because this is a relationship domain of such emotional significance for adults, ECRQ attachment style can provide a good proxy for more generic attachment representations. As no Arab version of ECRQ had existed before the present study, the scale was translated by the second author and another UK-based Arab academic using the method of back translation suggested by Brislin (1970). Both subscales attained very good reliability in the present sample. At T_1 , Cronbach's alpha was .82 for anxiety and .83 for avoidance while the values of Guttman's split-half coefficient were .75 and .85, respectively. At T_2 , alphas were .83 for anxiety and .84 for avoidance, while Guttman's was .7 and .85, respectively. In the present study evidence supporting the scale's concurrent validity was also obtained, as burnout correlated positively with anxiety at both T_1 ($r = .30, p < .001$) and T_2 ($r = .49, p < .001$) and with avoidance at T_2 ($r = .25, p < .001$), while at T_1 the correlation between burnout and avoidance was marginally non-significant ($r = .12, p = .059$).

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) is a widely used instrument measuring children's psychological distress completed by parent/teacher reports, while a self-report option also exists for adolescents. The instrument consists of five subscales (*hyperactivity, conduct problems, emotional symptoms, peer relationship problems* and *prosocial behaviour*), including 25 items overall measured on a 3-point scale (0, 1, 2). It has been validated with numerous ethnic groups demonstrating good internal consistency, as well

as discriminant and predictive validity (Goodman, 2003). The Arabic version used in this study has been validated with clinical and non-clinical Arab samples demonstrating good reliability, concurrent and criterion validity (Hariz et al., 2013). In the present study the scale was used as a whole, attaining very good reliability—alpha coefficients were .83 for T_1 and .75 for T_2 .

Security Scale (SS; Kerns, Klepac, & Cole, 1996) measures attachment security and consists of 15 items. Participants are asked to choose between two statements, one suggesting a secure relationship with the keyworker and one suggesting an insecure relationship (e.g. *some kids find it easy to trust their caregiver BUT other kids are not sure if they can trust their caregiver*). Then they need to indicate the extent to which that statement is true on a 2-point rating scale (*really true, sort of true*). SS has been validated against other attachment measures and attachment-related constructs (Brumariu, Madigan, Giuseppone, Movahed Abtahi, & Kerns, 2018) but as no Arabic version pre-existed, we developed our own translation following the procedure described above in relation to the SDQ scale. The scale attained very good reliability as at T_1 , Cronbach's alpha was .86 and Guttman's split-half coefficient was .92; at T_2 alpha was .85 and Guttman's coefficient was .88. The concurrent validity of the scale was also supported at T_1 and T_2 by theoretically expected negative correlations with SDQ ($r = -.26, p < .001$ and $r = -.3, p < .001$, respectively), child avoidance ($r = .26, p < .001$ and $r = -.32, p < .001$) and child ambivalence ($r = -.27, p < .001$ and $r = -.25, p < .001$). In all correlations, $df_{T_1} = 258$ and $df_{T_2} = 212$.

Coping Strategies Questionnaire (CSQ; Finnegan, Hodges, & Perry, 1996; Yungler, Corby, & Perry, 2005) consists of 20 items measuring two suboptimal strategies (avoidant and ambivalent) of utilising the caregiver in late childhood and adolescence. The authors point out that the scale should not be regarded as direct measures of insecure attachment but as proxies and provide evidence for their construct and concurrent validity against measures of child adjustment and caregiving experience. The questionnaire utilised an item and rating scale format similar to that employed in relation to the SS (Example of Avoidance: *Your caregiver has been away for a few days but is coming home later in the day. Some kids would not care that she is coming home BUT other kids would look forward to seeing her*. Example of ambivalence: *Your caregiver comes home after being away for a few days. Some kids would not be upset with her for having gone away BUT other kids would be upset with her for having gone away*). As no Arabic version of these scales pre-existed, we developed our own translation as described above. Both scales attained very good reliability as at T_1 , Cronbach's alpha was .81 for ambivalence and .7 for avoidance while Guttman's coefficient was .86 and .81, respectively. At T_2 alpha was .77 for ambivalence and .50 for avoidance while Guttman's

coefficient was .83 and .70, respectively. The concurrent validity of the scales was also supported at T_1 and T_2 by theoretically expected correlations. Avoidance correlated positively with SDQ ($r = .21, p = .001$ and $r = .18, p = .009$ respectively) and negatively with child security ($r = -.26, p < .001$ and $r = -.32, p < .001$). Ambivalence correlated positively with SDQ at T_1 ($r = .14, p = .030$), negatively with security at both T_1 and T_2 ($r = -.27, p < .001$ and $r = -.25, p < .001$ respectively). In all correlations, $df_{T_1} = 258$ and $df_{T_2} = 212$.

Demographics Questionnaire. Basic demographic and background information was also collected from both staff and children. These included gender and age from both, as well as level of qualification, marital status and work pattern (full/part-time) from staff.

Procedure

Staff completed their questionnaires in private and returned them to the second author (NA) in an anonymous envelope. Children completed their questionnaires with the help of NA in familiar and private spaces within their own institutions. The study conformed with the ethical principles of the 1964 Declaration of Helsinki. Staff provided written informed consent both for themselves and the children in their care; adolescents also provided informed consent and younger children provided assent. Before staff were approached, the study had received ethical approval from the Research Centre for Applied Psychology at the University of Bedfordshire, UK, and the Saudi institutions.

RESULTS

As data were collected from five different sites, we first investigated the possibility of nesting effects. Inter-class correlation coefficients (ICCs) for burnout were higher than the acceptable threshold ($ICC_{MBI, T_1} = .11$ and $ICC_{MBI, T_2} = .39$), so in all analyses we controlled for nesting effects by utilising four dummy variables indicating site. Associations between demographic and study variables were then explored, to identify possible confounders. Staff age was correlated with SDQ_{T_1} ($r = -.18, p = .01$), MBI_{T_1} ($r = -.30, p < .001$), and MBI_{T_2} ($r = -.26, p < .001$), Staff Avoidance $_{T_1}$ ($r = -.16, p = .022$) and Staff Anxiety $_{T_1}$ ($r = -.29, p < .022$) while staff gender was associated with all three child attachment styles (Wilks = .82, $F_{3,207} = 14.28, p < .001$) and staff burnout at T_2 (Wilks = .76, $F_{3,207} = 21.19, p < .001$). Educational status was also associated with T_2 variables, including child avoidance (Wilks = .92, $F_{9,484} = 1.99, p = .038$), the two staff attachment dimensions (Wilks = .57, $F_{6,400} = 21.82, p < .001$) and staff burnout (Wilks = .92, $F_{6,390} = 2.63, p = .016$). As a result, staff age, staff gender and educational status as

TABLE 1
Descriptive statistics of study variables

Variable	Time 1		Time 2	
	Mean	SD	Mean	SD
SDQ	33.17	6.84	31.88	5.75
SECURITY/SS	28	6.53	27.19	7.51
AVOIDANCE/CSQ	27.77	5.72	27.45	3.70
AMBIVALENCE/CSQ	23.48	4.29	28.17	5.23
AVOIDANCE/ECR	85.09	13.67	85.50	13.53
ANXIETY/ERC	89.27	15.43	89.14	15.81
MBI	86.84	13.24	84.64	12.49

well as T_1 burnout were also controlled for in subsequent analyses.

First, it was confirmed that, as predicted, child behavioural problems correlated with staff burnout both at T_1 ($r = .27, p < .001$) and T_2 ($r = .41, p < .001$) and that child problems at T_1 were predictively associated with staff burnout at T_2 ($F_{9,204} = 25.14, \beta = .20, p < .001$). Descriptive statistics for all study variables are presented in Table 1. Second, we conducted a series of moderated regressions to test whether the long-term effects of child behavioural problems on staff burnout were moderated either by children's attachment to the keyworker or the keyworkers' attachment style. Data assumptions for linear regression were met as p-p plots suggested an about normal distribution of residuals and scatterplots indicated a rather equal variability of standardised residuals across the range of the standardised predicted values (homoscedasticity). In some analyses evidence of collinearity was found (VIF values over 10), but after variables were centred all VIF values were 3.5 or below and tolerance values above .2.

SDQ_{T_1} was entered as the predictor, MBI_{T_2} as the outcome, while the three child attachment styles at T_2 and the two keyworker attachment styles at T_1 were alternatively entered as moderators. According to the findings, child avoidant attachment moderated the impact of child problems on staff burnout (see Table 2). Contrary to our expectation, keyworkers caring for relatively more avoidant children, reported lower burnout a year later than those who cared for the less avoidant. This link still stood when the other two child attachment styles were controlled for ($p = .010$). The impact of child behavioural problems on staff burnout was also moderated by keyworkers' avoidant attachment style as, compared to the less avoidant, relatively more avoidant keyworkers experienced more burnout due to child behavioural problems a year later.

To address the remaining hypotheses, a second series of moderated regressions were conducted in which the two keyworker attachment styles at T_1 were alternatively entered as predictors, staff burnout at T_2 was entered as the outcome variable, and the three child attachment styles at T_2 were entered in turn as moderators. According

TABLE 2
Moderation effects of child and keyworker attachment on predictors of burnout

Dependent variable: Burnout T_2							
Models	Predictors	Beta	<i>p</i>	R^2	Adj R^2	ΔF (<i>p</i>)	<i>df</i>
Model A	Final model			.54	.52	6.79 (<i>p</i> = .008)	1, 197
	Control variables			.49	.47	24.91 (<i>p</i> < .001)	9, 200
	SDQ T_1	-.19	<.001				
	Child avoidance T_2	-.08	.194				
Model B	Final model			.55	.54	4.86 (<i>p</i> < .001)	1, 197
	Control variables			.50	.48	22.28 (<i>p</i> = .029)	9, 200
	SDQ T_1	.20	.001				
	Staff avoidance T_1	-.07	.273				
Model C	Final model			.53	.50	10.715 (<i>p</i> = .002)	1, 197
	Control variables			.50	.48	22.28 (<i>p</i> < .001)	9, 200
	SDQ T_1 *Staff avoidance T_1	.11	.029				
	Staff avoidance T_1	-.07	.273				
Model D	Final model			.54	.51	16.64 (<i>p</i> < .001)	1, 197
	Control variables			.50	.48	22.28 (<i>p</i> < .001)	9, 200
	Staff avoidance T_1	.04	.456				
	Child avoidance T_2	-.09	.154				
Model E	Final model			.55	.52	15.75 (<i>p</i> < .001)	1, 197
	Control variables			.50	.48	22.88 (<i>p</i> < .001)	9, 200
	Staff anxiety T_1	-.07	.229				
	Child security T_2	-.12	.069				
Model F	Final model			.55	.52	16.73 (<i>p</i> < .001)	1, 197
	Control variables			.50	.48	22.28 (<i>p</i> < .001)	9, 200
	Staff anxiety T_1	-.01	.870				
	Child avoidance T_2	-.04	.552				
Model G	Final model			.53	.50	4.07 (<i>p</i> = .031)	1, 197
	Control variables			.50	.48	22.38 (<i>p</i> < .001)	9, 200
	Staff anxiety T_1	-.10	.025				
	Child ambivalence T_2	-.05	.445				

to the findings, the effects of staff avoidance on staff burnout were moderated by child avoidance and security, while the effects of staff anxiety were moderated by all three child attachment styles. Both avoidantly and anxiously attached keyworkers experienced greater burnout when they cared for relatively avoidant and non-secure children, while anxiously attached staff also experienced elevated burnout when they cared for relatively ambivalent children.

DISCUSSION

The present findings suggest that child behavioural problems put keyworkers at lower risk of burnout when

children under their care develop an avoidant relationship style towards them and at a greater risk when their own attachment style is avoidant. The former finding appears at odds with previous research suggesting that among adolescents in residential settings, attachment avoidance is linked with truancy, rule breaking and violence towards staff (Zegers et al., 2008). Our expectation was that such behaviours would put residential workers under significant emotional strain and therefore experience relatively higher burnout when they care for avoidant children. The present findings, however, seem to suggest that caring for an avoidant child may in fact protect against burnout, at least in the context of Saudi orphanages.

Perhaps residential workers find it easier to keep an emotional distance from children unwilling to engage with them or from those engaging in an irregular manner. Greater interpersonal distance would mean more restricted exposure to the children's difficult emotional states and therefore lower work-related distress. In addition, the constrained sociability of avoidant children may make it easier for residential workers to abide by their cultural prescriptions and keep the children at arm's length. Previous research suggests that Saudi workers experience ambivalence towards the orphans as they appear caught up between conflicting cultural and religious prescriptions (Sochos & Aljasas, in press). If children themselves do not seem willing to belong, workers' guilt, internal conflict, and ultimately burnout, may be reduced. On the other hand, as the relatively non-avoidant orphans resemble ordinary children, they are more likely to elicit significant keyworker interest and commitment, exposing the latter more fully to the former's challenging emotional world. Deeply engaged residential workers may also build wishful, unrealistic expectations about the children's prospects, which, given the level of trauma experienced by the latter and the limited resources available to the former, will frustrate and eventually detach the workers. Moreover, when children wish to engage and belong, the conflict between Saudi and Islamic prescriptions may intensify among workers, eventually leading to greater distress.

Another factor to be considered when interpreting these findings is the potential heterogeneity of the children classified as relatively avoidant on the basis of the CSQ. Researchers utilising different attachment measures have identified two distinct avoidant sub-types, *angry dismissive* and *withdrawn*, with the former presenting greater overall pathology and more disruptive behaviour (Bifulco, Jacobs, Ilan-Clarke, Spence, & Oskis, 2017). If our sample happened to include a large number of avoidant-withdrawn children, that could potentially account for the unexpected finding. Future research should confirm the presence and frequency of those sub-types of avoidance in Saudi samples.

According to the present findings, the long-term effects of child behavioural problems on staff burnout were also moderated by an avoidant attachment style in the keyworker. This seems consistent with numerous studies reporting that avoidant individuals employ suboptimal intra- and inter-personal mechanisms to deal with stressors, both in and away from the workplace (Yip, Ehrhardt, Black, & Walker, 2018). Avoidant individuals tend to repress negative emotion, maintain emotional distance from others and underutilise available resources of social support. Although their self-reliant approach often allows a degree of mastery over object-related tasks, these individuals can be particularly vulnerable when dealing with interpersonal stressors, such as negative feedback from others and cues of social rejection

(Carvalho & Gabriel, 2006). Research suggests that the defensive deactivation of the attachment system and the suppression of negative emotion, that define attachment avoidance, are linked with a variety of psychological and physical conditions including burnout (Pines, 2004). According to our findings, avoidant residential workers were affected further when they cared for avoidant and generally insecure children, possibly because those children were likely to communicate negative evaluative messages. Previous studies suggest that avoidant children in residential care are often dismissive, defiant and rude (Zegers et al., 2008), behaviours likely to be perceived by avoidant staff as rejecting.

Children's insecure and dysfunctional interpersonal styles also seem to increase burnout vulnerability among anxiously attached keyworkers. Informed by representations of important others as emotionally unreliable and of the self as unable to cope, anxiously attached keyworkers are likely to experience difficulties regulating emotion and they often embark in angry, conflictual interactions with the children in their care. Research has shown that teachers with an anxious attachment representation are unable to facilitate successfully the resolution of a conflict as they cannot integrate effectively the concerns of both parties (Morris-Rothschild & Brassard, 2006). Moreover, anxiously attached therapists leave the children they treat with relatively high aggression at the end of treatment, as they fail to offer them the necessary support in regulating overwhelming emotion (Muratori et al., 2017). Perhaps anxiously attached orphanage workers encounter similar difficulties in managing these traumatised and challenging children and are more likely to experience burnout when children use avoidant, ambivalent and generally insecure strategies of approach. Avoidant children can be dismissive, ignoring and antisocial while ambivalent children can be demanding and aggressive (Cassidy & Berlin, 1994), all interpersonal attitudes that challenge the anxious keyworkers' fragile sense of competence and self-esteem.

To the best of our knowledge the present study was the first to investigate the effects of child-keyworker attachment on residential workers' burnout and the first to confirm links between workers' attachment style and burnout in an Arab sample. Findings, however, should be approached with caution, as the present attachment scales had not been used with an Arab sample before and further validation is required. Moreover, we need to be mindful of the difficulties involved in the assessment of attachment in both children and adults. In relation to older children and adolescents, as dependency on the caregiver decreases with age the assessment of attachment cannot be based on behavioural indicators as it does with infants during the Strange Situation. On the other hand, attachment representation is a complex construct, difficult to be captured through language-based assessments, like the ones used in

this study, as young persons' socio-emotional and cognitive abilities are fast evolving and the mental models of self and other remain relatively fluid (Jewell et al., 2019).

The complexity of assessing attachment is also confirmed by the multiplicity of measures and approaches in measuring adult attachment. Such heterogeneity, both in relation to adult and child measures, seems to suggest that different aspects of this multifaceted construct are assessed (Bosmans & Kerns, 2015). The current findings should be interpreted in light of these methodological limitations. As its creators suggest, the CSQ should not be regarded as a direct measure of insecure attachment but as proxy (Finnegan et al., 1996), while ECRQ assesses adult attachment in the particular, albeit central, domain of couple relationships. An additional limitation of the childhood scales we used is that they did not directly assess attachment disorganisation, an attachment pattern related to childhood trauma and deprivation and frequent found among children in care (Zegers et al., 2008). Nonetheless, attachment disorganisation levels could be approximately estimated within our sample, as disorganised individuals present both high attachment anxiety and avoidance. Finally, although the researchers were unrelated to the institutions' management and that was made clear to participants, there is always the possibility that social desirability and demand characteristics bias affected participant responses, particularly among staff, in the context of strict and hierarchical organisations like the Saudi orphanages.

With these considerations in mind, the present findings highlight the interpersonal aspects of burnout, suggesting that work-related distress is in effect the outcome of dysfunctional human relationships within particular organisational and socio-cultural contexts. The findings could inform practice in the Saudi orphanages and other types of residential care by advocating the enhancement of specialist psychological interventions aiming to increase attachment security in both children and staff. In recent years, attachment-based interventions promoting maternal responsiveness and sensitive discipline have been utilised with considerable effectiveness in residential care (Casonato, Nazzari, & Frigerio, 2017). When parents are not available, as it is the case in the Saudi orphanages, such interventions can be adapted to involve the residential keyworker, not only as a child-protective strategy but also as part of an organisation's an anti-burnout policy. Those could be complemented with attachment-informed psycho-educational groups for staff. Future research should evaluate the effectiveness of such interventions in both western and developing countries and identify universal as well as context-specific intervening factors.

Manuscript received December 2019
Revised manuscript accepted May 2020

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