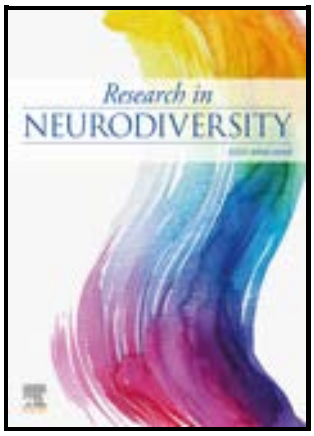

Building resilience in mothers caring for neurodivergent children: A multi-framework approach integrating personal resources and self-regulation

Alexander Barnes, Madeleine Pickles, Sue Cronshaw, Tony Wall

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Building resilience in mothers caring for neurodivergent children: A multi-framework approach integrating personal resources and self-regulation

Lead author: Alexander Barnes, PhD

0009-0002-9427-7117

Liverpool Business School, Liverpool John Moores University, Redmonds Building, Brownlow Hill, Liverpool, L3 5UG. Email: afb230@gmail.com

Madeleine Pickles, PhD (corresponding author)

0000-0001-5536-6577

Associate Professor, Liverpool Business School, Liverpool John Moores University, Redmonds Building, Brownlow Hill, Liverpool, L3 5UG

Sue Cronshaw, PhD

0000-0002-9004-823X

Associate Professor, Liverpool Business School, Liverpool John Moores University, Redmonds Building, Brownlow Hill, Liverpool, L3 5UG

Tony Wall, PhD

0000-0003-2334-3279

Professor, Liverpool Business School, Liverpool John Moores University, Redmonds Building, Brownlow Hill, Liverpool, L3 5UG

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Abstract

Neurodiversity affects up to 15% of the United Kingdom population, often requiring additional parental support that can lead to significant caregiver strain and reduced quality of life. This study contributes UK-based evidence to the growing international literature on caregiving experiences of parents of neurodivergent children. We explored the experiences, resources and coping strategies of 19 mothers of neurodivergent children, through semi-structured interviews and thematic analysis. Caregiver experiences remain underrepresented in neurodiversity research, with limited focus on parental well-being and the lived realities of family life. Additionally, existing studies often adopt fragmented approaches, addressing individual factors in isolation rather than considering how multiple resources, such as time, social support and cognitive capacities interact to shape coping. The findings identified nine key resources affecting mothers' lives: time, social support, financial situation, health, cognitive resources, psychological resources, mindfulness, personal skills, and family support. Mothers with stronger resources and effective goal achievement were better equipped to manage challenges and cope with stressors. Time management is important, with effective time use leading to positive outcomes in goal achievement, well-being, and social connections, along with support networks providing psychological comfort and advice, and respite from childcare. Findings suggest support interventions should focus on strengthening resources through parent-led approaches in supportive environments. Cognitive behavioural therapy, parenting, mindfulness interventions, and peer support are used to implement these strategies. This study focuses on UK mothers addressing education, health, and social care challenges unique to their specific environment. In addition, prior studies focus on parents caring for children with specific neurodiversity's like ASD or ADHD. In this study, some mothers cared for more than one neurodivergent child. Some children had multiple neurodevelopmental diagnoses. The results therefore identify key resources needed by mothers with children who have broad neurodiversity behaviours and needs. This study contributes to the theory of conservation of resources and regulatory mode theory in caregiving for neurodivergent children, providing frameworks to enhance parental well-being in the context of neurodiversity.

Keywords: Neurodivergent children; Mothers; Personal resources; Self-regulation; Caregivers

Introduction

Neurodiversity encompasses a range of conditions, including attention-deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), cerebral palsy, bipolar disorder, schizophrenia, depression and learning disabilities such as dyslexia and dyscalculia (Miranda-Ojeda et al., 2025). Up to 15% of the United Kingdom (UK) population is considered neurodivergent (ADHD Aware, 2024; Boland and Burgess, 2023). Specifically, neurodivergent children have distinctive challenges and can struggle to participate in typical childhood activities compared to similarly aged neurotypical peers (Mullins, 2024; Ritzema et al., 2017; Sapre et al., 2025) and often require additional parental support. This results in caregiver strain (Tonis et al., 2024) and reduces social connections owing to time constraints or affiliate stigma, which negatively affect parents (Mikulincer and Shaver (2022); Scherer et al., 2019) and reduce benefits from social support networks (Bozkurt et al., 2019). The quality of life (QoL) of parents of neurodivergent children may therefore generally be lower than that of neurotypical children (Vaz, 2022; MacKenzie and Eack, 2022; Poole et al., 2024).

Research by Cousino and Hazen (2013) suggests that parental stress is linked not to diagnosis, but to the responsibilities involved in managing the child's care, and the parents' psychological

ability to adjust. The severity and detail of children's neurodivergent symptoms may however be a significant predictor of caregiver stress levels (Lecavalier et al., 2006; Pardo-Salamanca et al., 2024). Studies into ASD have found stress linked to social stigma, financial concerns, and challenges from preparing for, and dealing with formal support agencies (Serrata, 2012; Bonis and Swain, 2016; Mikulincer and Shaver, 2022; Pilapil et al., 2017).

The impact of inadequate information and support can result in parents of neurodivergent children facing greater anxiety, anger, depression, and stress (Zabotsky et al., 2013; Hayes and Watson, 2013; Pardo-Salamanca et al., 2024). Parents adopt a variety of coping behaviours. These may be positive strategies, but some behaviours can result in harmful active avoidance approaches with less positive outcomes (Hudson, 2016; Lai and Oei, 2014; Sarria and Pozo, 2017). Social support and self-compassion, time management, and routines, can reduce stress and depression, and improve wellbeing (Neff and Faso, 2015; Pardo-Salamanca et al., 2024; Schlebusch, 2015) along with a recognition of the importance of the individuals lived experience (Parrella et al., 2026). The complementary effects of such positive emotions can lead to resource gain spirals, and these have been acknowledged to enhance wellbeing through the concepts of crossover and broaden and build (Wei et al., 2021).

The importance of social support, alongside the role of the family is acknowledged in the neurodivergent-care literature for its positive effect on life satisfaction and well-being (Halstead et al, 2018; Lovell and Wetherell, 2019). This is reinforced by Battanta et al. (2024), whose study of parents of autistic children highlighted the particular value of support from peers with similar caregiving experiences, as well as from professionals. Prior approaches to parental support have developed programs that focus on family centred interventions (McConkey et al., 2023). These are often community- and home-based (Mullan at al., 2021; Zuurmond, 2019) with a focus on early intervention to build parental confidence and ability through better information, knowledge, community and social connections, and child development initiatives (Amsbary and Able, 2023). Such programs commonly develop mental and emotional well-being and hope through self-development, empowerment, and self-confidence (McConkey et al., 2023).

Increasing attention has been paid to mindfulness- and compassion-based interventions to aid parental resilience through adaptive stress appraisal and coping (Cousineau et al., 2019). Conservation of resources (COR) has been proposed as a framework to explain how mindfulness may support motivation in work settings (Kroon et al., 2015), which may be relevant to mothers caring for neurodivergent children, whose childcare commitments can be extensive and fully-absorbing. Ultimately, mindfulness helps individuals observe experiences with non-judgmental awareness, which reduces emotional reactivity to stressors and supports the preservation of psychological resources, thereby buffering the negative effects associated with resource loss or limited resource gain (Guo et al., 2025).

Eccleston et al. (2015) found that cognitive behavioural group therapy (CBGT) helped parents develop adaptive coping strategies, create resilience, and deal with stressors, with relatively short interventions leading to positive psychological effects in mothers of children with autism (Izadi-Mazidi et al., 2015). Iadarola (2018) identified that generalised parental training (PT) can be effective in reducing disruptive child behaviour, increasing parental competence, and decreasing stress and strain. Compassion Focused Therapy (CFT) is advocated as an intervention for elevated self-criticism and shame and may be appropriate for directed self-help with parents caring for autistic children.

In this wider context, regulatory mode articulates the capacity to regulate cognition and behaviours, providing a coping tool to reduce negative effects (Schlaegel et al., 2022). Regulatory mode theory addresses an individual's self-regulation processes through their personal orientations of assessment and locomotion (Higgins et al., 2003; Kruglanski et al., 2000, 2018). Assessment encompasses the evaluation and deliberation of goals and the potential means of effectively achieving them (Kruglanski et al., 2000) whilst locomotion focuses on the initiation and sustainment of actions and movements from a person's current state to a desired goal or state (Jansen et al., 2023). Both locomotion and assessment are necessary for effective goal pursuit. The extent to which people are sensitive to, or focus on assessment, or locomotion, can vary, with individuals, from time to time, having a bias towards one or the other (Orehek et al., 2017). An individual's regulatory mode orientation may influence their effort to maintain or develop personal resources and, therefore, their capacity to maintain personal well-being and provide for future needs (Holmgreen et al., 2017).

Within COR theory, resources are valued personal characteristics, objects, energies, and conditions that individuals possess or use to gain additional valued resources. Resources include social support, time, income, energy, self-efficacy, and skills. COR theory argues that people attempt to protect, acquire, and build resources, and that stress arises when resources are threatened, lost, or inadequately gained. Individuals use their resources to protect and recover from resource losses, and those with stronger resource situations are better equipped to deal with stressors (Clissold et al., 2021; Hobfoll, 1989). People who successfully manage their resources may experience less stress and more satisfaction. COR theory emphasises the importance of an individual's environment in inhibiting and nurturing their resource situation (Chen et al., 2015; Liao et al., 2022).

(Chen et al., 2015; Liao et al., 2022). However, personality (Amato et al., 2019; Kruglanski et al., 2016), context (Avnet and Higgins, 2003; Brummelhuis and Bakker, 2012; Fan and Potočnik, 2021), and an individual's assessment and locomotion orientation may also be significant for resource conservation, gain, and goal achievement. Prolonged or significant resource use may deplete an individual's resources so significantly that they begin to experience stress, exhaustion, and potentially burnout (De Cuyper, 2012) it is important therefore that individuals accumulate resources and use them to respond to stressors, and to build, and enhance their reservoirs of resources to sustain them for future needs (Holmgreen et al., 2017).

In COR theory, resilience refers to people remaining vigorous, committed, and engaged in important life tasks even under stressful circumstances (Chen et al., 2015). This is a positive process in the face of considerable and often consistent difficulty, requiring learning from personal struggles to become stronger, more positive, adaptable, knowledgeable, and able for the future, despite distress and anguish (Khu et al., 2019). COR conceptualise resilience not as a fixed individual trait, but as a dynamic capacity that emerges from the accumulation and protection of personal and social resources. These resources include supportive social relationship and psychological resources such as self-efficacy, mastery, and related personal strengths that enable individuals to cope more positively with stress and recover from resource loss (Egozi Farkash et al., 2022; Schäfer et al., 2024).

Prior studies have focussed on parents caring for children with specific neurodiversity's such as ASD or ADHD. The parents in this study cared for children with a range of neurodiversity's. Furthermore, siblings often had more than one neurodiversity, and some mothers had one child with ADHD and another child with ASD, indeed, one mother had 5

children with a mix of neurodiversity's. This study focuses on mothers of neurodivergent children living in the UK and investigates their experiences of navigating the country's education, health and social care systems. It seeks to understand how these mothers manage the substantial and often competing demands of caregiving within time-constrained lives, with particular attention to the resources and coping strategies they draw upon when responding to these challenges (Cohn et al., 2020; Asbury et al., 2021).

The study sought to understand the experiences of parents of neurodivergent children, individuals living particularly challenging, time-pressed lives (Cohn et al., 2020; Asbury et al., 2021). Existing literature is scarce on how parents caring for neurodiverse children consider, deal with, and address their life stressors through the two studied constructs of conservation of resources and self-regulation.
The following section presents the methodology and analytical approach, followed by the findings, a discussion of the results and the conclusion.

Method and analysis

A qualitative methodology using a phenomenological interpretivist approach was used to deeply understand the perceived realities of stressed, time-pressed mothers caring for neurodivergent children, and the psychological and physical factors affecting them. To develop insight into the perceived realities of these parents, and the psychological and physical factors affecting them, a qualitative methodology, with a focus on identifying and understanding the way individuals perceive their experiences, and associate meaning to them (Merriam & Tisdell, 2015). Such understanding helps determine whether the day-to-day experiences of these parents' links specific aspects of conservation of resources (COR) (Hobfoll, 2001) and regulatory mode within self-regulation, through their self-regulation, specifically through their assessment, and locomotion orientations (e.g., Amato et al., 2014).

Ethical approval and consent

Ethical approval for the study was granted by Liverpool John Moores University on [1 December 2022] (reference: 22/LBR/008). All participants received a participant information sheet explaining the study, confidentiality arrangements, data management procedures and their right to withdraw. Written informed consent was obtained before each interview. Participants were assigned pseudonyms/identification codes, and identifying information relating to participants and their children was removed from the transcripts and research outputs.

Participants

The study used purposive sampling to recruit parents who provided long-term care for children, experienced continuing caregiving demands and time constraints and routinely made complex decisions concerning their children and family lives. Purposive sampling was appropriate because it enabled the recruitment of participants with direct experience of the phenomenon under investigation (Patton, 2015; Ravitch & Carl, 2019). Although recruitment was initially open to parents meeting these criteria, only mothers caring for neurodivergent children volunteered and proceeded to interview. The resulting sample therefore comprised mothers of neurodivergent children.

Participant recruitment took place during summer 2023 and was conducted by one researcher. The researcher approached 57 Facebook groups and charities supporting families of neurodivergent children and requested permission to display a recruitment flyer. Twenty-five organisations agreed to share the flyer. The remaining organisations either declined or did not respond. Where reasons were provided, these included policies restricting research advertising, membership eligibility requirements and concerns about protecting group members from unsolicited research. Some organisations requested the flyer for consideration but did not subsequently respond. It is therefore not possible to determine why every organisation that did not display the flyer chose not to do so.

Table 1 provides details of the participant demographics. The sample comprised 19 mothers caring for 40 children in total. Thirty-one children had a diagnosed neurodivergence or complex developmental need; two additional children were awaiting assessment. All participants undertook paid work alongside parenting: five worked full-time and 14 worked part-time or variable hours, including self-employment. Fourteen participants were married or partnered and five were single; partner co-residence was not consistently recorded. Sixteen owned their home, two rented and one lived in employer-provided accommodation. Eighteen participants lived in urban settings and one in a rural setting. Most described their finances as adequate or stable, although accounts also identified insufficiency, constraint or cost pressure. Educational attainment ranged from Level 3 to Level 8. Exact years of education were not collected and are therefore not inferred.

Table 1. Anonymised participant demographics and resource context

ID	Children, n	ND/complex needs, n	Education (highest; years)	Paid work	Partnership / household	Housing	Financial position	Setting
P1	2	2	Level 6 degree; years NR	Self-employed, part-time	Partnered; co-residence NR	Owner	Stable/adequate	Urban
P2	4	1	Level 7 master's; years NR	Self-employed, part-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P3	2	1 diagnosed; 1 awaiting assessment	Level 6 postgraduate certificate; years NR	Self-employed, part-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P4	3	2	Level 5 professional qualification; years NR	Employed, full-time	Single; non-resident father involved	Owner	Stable/adequate	Urban
P5	2	2	Level 6 degree; years NR	Variable part-time work	Single	Owner	Insufficient	Urban
P6	2	2	Level 8 doctorate; years NR	Employed, full-time	Married; co-residence indicated	Owner	Adequate, with cost pressure	Urban
P7	2	1	Level 5 diploma; years NR	Employed, part-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P8	2	1	Level 7 master's; years NR	Self-employed, part-time	Single	Owner	Stable/adequate	Urban
P9	2	1	Level 6 degree; years NR	Self-employed, part-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P10	2	2	Level 6 degree/professional qualification; years NR	Employed, full-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P11	1	1	Level 6 degree; years NR	Employed, part-time	Single	Renter	Stable/adequate	Urban
P12	5	5	Level 6 degree; years NR	Variable part-time work	Married; co-residence NR	Employer-provided	Stable/adequate; allowances	Urban
P13	3	1	Level 3 upper-secondary qualification; years NR	Employed, full-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P14	2	1 diagnosed; 1 awaiting assessment	Level 6 degree; years NR	Self-employed, full-time	Married; co-residence NR	Owner	Stable/adequate; financial support	Rural
P15	2	2	Level 7 master's; years NR	Variable part-time work	Married; co-residence NR	Owner	Stable/adequate	Urban
P16	1	1	Level 6 degree; years NR	Self-employed, part-time	Single	Owner	Adequate but constrained	Urban
P17	2	2	Level 6 degree; years NR	Employed, part-time	Married; co-residence NR	Owner	Stable/adequate	Urban
P18	3	3	Level 7 postgraduate certificate; years NR	Employed, part-time	Married; co-residence indicated	Owner	Stable/adequate	Urban
P19	1	1	Level 4 higher national qualification; years NR	Variable part-time work	Partnered; co-residence NR	Renter	Variable/strained	Urban

Note. ND = neurodivergence; NR = not recorded. Counts include diagnosed neurodivergence and complex developmental needs described in the source data. "Awaiting assessment" is reported separately. Exact ages, rare diagnoses, occupations, direct quotations, locality details and other potentially identifying combinations have been removed or grouped. Financial categories summarise participants' self-reports rather than objectively measured household income. Partner co-residence was not consistently collected and is not inferred.

Most prospective participants contacted the researcher through Facebook direct messaging. They provided brief information about their family circumstances and their children's support needs, which the researcher reviewed against the study's eligibility criteria. Eligible participants were then sent a participant information sheet and consent form by email. Written informed consent was obtained before the interview.

Snowball sampling supplemented the initial recruitment strategy, with three interviewees recruited through referrals from existing participants. Twenty-nine people expressed an interest in the study, of whom nine did not proceed to interview. Twenty participants were interviewed; one interview was subsequently excluded because the mother's children suffered from diabetes and had no neurodiversity issues. It was felt this exclusion supported the study's generalisability and representativeness by maintaining a clearly defined participant group. This resulted in a final analytical sample of 19 mothers.

Of the 19 participants, 18 lived in the United Kingdom and one had recently moved abroad. They ranged in age from 32 to 57 years, with a mean age of 45. All described themselves as the primary caregiver and principal decisionmaker for their children. Eighteen participants were employed: three worked full-time, eight worked part-time, and seven were self-employed or worked on a freelance basis.

Interview procedure

Interviews were the primary data collection tool and were conducted online using Microsoft Teams and recorded through the Microsoft Teams voice and transcription facility. Online meetings were adopted because of the likely physical distances involved, because it would take up the least time, and removed the need for participants to travel, park, or walk to a meeting location. All 19 interviews were individual, one-to-one interviews conducted by one researcher. The content and structure of the interview guide drew on Kvale's 9 types of interview questions (Kvale, 1994). Kvale recognised nine interview question types to support qualitative interviewing, clarify meaning, and develop understanding. They include introducing questions ("Can you tell me about...?"), follow-up ("How did that make you feel…?", probing ("Could you give a specific example of that?"), specifying ("What did you do then?"), and direct, indirect, structuring, and interpreting questions. These, together with strategic silence, and interpreting questions ("Did you feel...?"), encourage participant responses, maintain focus, and support accurate interpretation of perspectives and experiences. Logging into an MS Teams meeting was thought by the researchers to be a relatively simple and straightforward online video application compared to others. During planning, it was considered that participants may feel more comfortable being interviewed remotely in their own home or a place of their own choosing, in which they would feel safe, rather than having to travel to attend a potentially unknown location chosen by the researcher. All mothers said they were happy to use Teams when asked, and it subsequently presented no issues. Safety of the sole male researcher was also discussed prior to interviews, as it was considered the selection criteria for participants would provide parents who were particularly strained and challenged and may find the interviews stressful. The mothers' reactions could not be predicted, and it was felt by the researchers that remote interviews would also incorporate a degree of personal safety for the male researcher who it was expected may be interviewing mothers who might be unaccompanied.

Semi-structured interviews were used to understand the participants' perceptions and experiences and provide a degree of control over the process (Bryman and Bell, 2015). Questions allowed and encouraged follow-on researcher-guided conversation as well as unguided participant input. This approach supported greater understanding of how the population experiences phenomena (Ravitch and Carl, 2019).

The semi-structured interviews took the form of researcher-guided conversations. In this approach, the researcher used predetermined questions and follow-up prompts to guide the discussion towards topics relevant to the research aims, while allowing participants sufficient flexibility to describe their experiences, priorities and interpretations in their own words. The interview guide covered five areas: caregiving stressors, sources of support, life-course experiences, the perceived value of time, and time-management and goal-pursuit strategies. Representative questions included: "What would you say are the greatest demands and challenges placed upon you?"; "What help do your support networks provide?"; "Thinking about your life experiences, are your memories generally positive or negative?"; and "When you set yourself a goal, what helps you to achieve it successfully?" Follow-up questions and prompts were used to seek clarification, explore examples and encourage participants to reflect more fully on their experiences (Mishler, 1991). The complete interview guide is provided in the supplementary material in Appendix A: Interview Guide.

All but two participants completed the interview in one session. The other two interviews were carried out in two parts at the request of the participants, who needed to break up the interviews to accommodate their children's routines. A pre-interview script was piloted before use to assess and refine the script and interview procedures and to support rapport-building. It was designed to provide participants with a clear, supportive introduction to the interview process.

The script covered participant welfare, including an opportunity to raise concerns or ask questions, informed consent and confirmation that participation was voluntary, confidentiality and how interview data would be handled, the availability of breaks during the interview, and participants' right to withdraw in accordance with the study procedures. It also helped ensure that participants understood what the interview would involve and what to expect before beginning. From the start of each interview, short notes of any relevant observations to support subsequent data analysis were jotted in an interview book to support analysis (Saunders et al., 2019). The average interview duration was approximately 1h 30 minutes, with a range of 1h 10 minutes to 2h 10 minutes.

Data Analysis

Following each interview the MS Teams generated transcripts were reviewed as soon as possible by watching and comparing the transcription with the video recordings. There were 19 interview transcripts in total. The transcriptions from MS Teams proved to be effective and could subsequently be corrected using a split screen showing the auto-transcript from MS Teams, and video recording. The initial transcripts could be misleading and even provide an incorrect record of what had been said, so, minor adjustments were made to ensure participants' comments could be better understood during subsequent coding. As an example, the following statement by P1, was made over 8 separate consecutive statements:

"Yes and no. So, a lot of the complex issues that were dealing with have no real resolution. So things like how to access social care that's going to meet xxx's needs. There isn't any and. We spend a lot of time thinking about innovative solutions, but ultimately, they're just isn't one

because there aren't enough. And whatever solution. Yeah. Yes. Yeah, to a degree. Yeah. You have to really put your pick your battles".

The statement became*: "Yes and no. So, a lot of the complex issues that we're dealing with have no resolution. So, things like how to access social care that's going to meet George's needs. There isn't any and we spend a lot of time thinking about innovative solutions, but ultimately there just isn't one because there aren't the solutions enough. You have to really pick your battles".*

Both NVivo and Excel were used to analyse the data, and creation of the codebook for each was primarily inductive, although elements were deductive in Excel. In each approach, the codebook approach emerged during coding. Using NVivo, initial codes generally used participant language as code labels, and as the codes evolved through inductive thematic coding, a refined list was constructed using descriptive data from the interviews. Thematic analysis proceeded as transcript analysis progressed. The Excel analysis initially drew on predefined research questions, for example, participants' "resources and regulatory mode orientations. However, codes subsequently evolved through inductive thematic coding similar to the NVivo process. Separate codebooks were therefore developed for the Excel and NVivo analysis.

After the fourth transcript had been coded, an extensive first pass review of extant concepts was undertaken to develop concept categories, combining similar or repeated concepts and child, or sub-concepts under parent concepts. An example of an initial first order concept grouping was combining 'need for downtime', 'not used to relaxing', and 'parental wellbeing is missed'. These were combined to create 'need for personal time'. Following further transcript coding, a further review developed final initial concepts which included sub-concepts. An example of this is the parent concept of 'disparate approach to children', with two sub concepts of 'sick child is a dominant focus', and 'the other child doesn't get a look in'. The developing concepts were reviewed again to create the 'revised concept' (pre-theme) set, prior to identifying second order themes (Gioia et al., 2010, 2013).

This study then drew on Gioia et al. (2010, 2013) to develop the data structure. An interpretive approach supported the identification of first order concepts rather than codes, second order themes, and aggregate dimensions (Gioia et al., 2013). The term concept rather than codes reflects the Gioia terminology.

Findings

The findings are drawn from a sample of 19 mothers of neurodivergent children, nearly all of whom (18) resided in the United Kingdom, with one participant based in Germany. The participants ranged in age from 32 to 57 years, with a mean age of 45. In every instance, the mother served as the primary caregiver and lead decisionmaker for her children. Professionally, 18 of the 19 participants were employed, three worked full-time, while the remainder were split between part-time employment (8) and self-employment or freelance work (7).

All their children were neurodivergent and several had comorbidities. Some children had suffered health conditions and disorders aside from their neurodiversity since birth, but others had developed or established them post-birth. Two mothers cared for children who also had mobility restrictions due to paraplegia or cerebral palsy. Several mothers had more than one

child with some form of neurodiversity, and children often had numerous significant co-morbidities.

For the mothers in this study, nine key themes emerged from coding their transcripts. The themes could be considered resources, and were time, connection, physical and mental challenges, cognitive resources, psychological resources, mindfulness, personal skills, immediate family support. Time is conceptualised as a finite, fundamental resource required to deploy skills and coping strategies. Personal connection & Immediate family support are considered as relational capital and primary social support buffers. Cognitive resources, psychological resources, & mindfulness are considered important internal regulatory mechanisms that help individuals manage stress appraisal and emotional control. Personal Skills are practical, executable assets and abilities used to meet environmental demands. Physical and mental challenges overall, drive essential responses that achieve resource deployment to respond to stressors, deal with stress, and generate the accumulation of new resources. Several themes were explicit, and included time, social support, financial situation, and health. Other themes: cognitive, psychological, mindfulness, personal skills (the capacity to effectively address issues, often related to their children), and immediate family support, were more implicit yet but nonetheless influential.

Within the COR framework, an individual's resources collectively form their resource reservoir. A reservoir is structured across distinct yet supporting domains that defend against stress and support adjustment. The reservoir forms the accessible mix of social, material, personal and environmental resources. What was required by the women was a strong resource reservoir, which included reliable, accessible sources of support to help them cope more positively with challenges and maintain their wellbeing. Strong resource reservoirs alongside effective goal achievement were central to how the mothers managed their daily lives, reduced stressors, and cope more positively (See Figure 1).

Establishing nine key resources for the mothers was important because these resources do not appear to have been identified previously, but also because they form the foundation for understanding the skills needed by mothers caring for neurodivergent children. Furthermore, the analysis revealed five distinct combinations of these resources which highlighted the resources that were most valuable across participants, regardless of whether their resource caravans were well, or poorly resourced.

Time

Time and its management emerged as a significant factor influencing mothers' psychological wellbeing, coping, and sense of efficacy. When time was disrupted or consumed by the unpredictable demands of parenting, mothers described feelings of frustration, stress, and reduced control. P12's experience of prolonged difficulties around her daughter's morning routine illustrates how the demands of supporting a neurodivergent child could significantly constrain the mother's time and emotional resources.

'I'm often there till about 9:30 in the morning trying to get her through the door; it's frustrating and stressful' (P12).

Conversely, when mothers were able to use their time effectively, this appeared to contribute to positive affect, goal achievement, and a greater sense of wellbeing. P8 described deliberately

committing to activities and using external accountability to make time for things that were beneficial to her

'*I'm also making the best use of the time I have… because I know in the end that's good for me' (P8).*

This suggests that effective time management provided mothers with a greater sense of agency and enabled them to prioritise activities that supported their own wellbeing. However, mothers' accounts also demonstrated the extent to which their available time was dominated by the needs of their children. P6 estimated that

'*60% of my time' was spent undertaking personal-assistance-type duties for her children (P6).*

This substantial allocation of time illustrates how caring responsibilities could leave mothers with limited opportunity to attend to their own needs, relationships, work, and leisure. The competing demands on their time could also affect family relationships. P18 described occasions when the needs of her neurodivergent child became so intensive that she had to prioritise her over the rest of the family.

'*There are times when it becomes just too much, and I then end up prioritising her ahead of the rest of the family' (P18).*

Similarly, P9 highlighted the impact of competing work and family demands, stating

'*I have too much work, not enough hours in the day, and it means I'm spending less time with the family and I'm not really liking that' (P9).*

Connection

Existing literature recognises that time helps people socialise, which can increase happiness. Mothers in this study reinforced this. They commonly talked about the positive benefits of seeing friends but routinely mentioned how difficult it was to fit this in alongside their diverse responsibilities. They mentioned effective support networks with their close and wider family, old and new friendship groups, work, and church groups. They also discussed the benefits of access to a local drop-in centre that allowed them to have a quiet space for themselves. In such a space, they could work or relax while their neurodivergent children were supported by competent care staff, either nearby or in well-devised community activities These close networks often focused on a few intimate friends who provided efficacious help and support.

'I've got a network of a couple of other mums whose children are also neurologically diverse, and we just catch up and either drink wine or go for a meal, …, the[their] children are different from my children. And so, it's communicating with other people and just having a crutch to lean on, and you know, that really helps, because a lot of people don't understand' (P7).

Workplace social relationships underscored the importance of supportive work environments and emotional support for providing respite from childcare responsibilities. Some mothers

appeared relatively limited in their capacity to relate effectively to others, and this appeared to demonstrate reduced compassion for others. This was assessed by the researchers as contributing to a reduced capacity to socialise and maintain social connections, which appeared to affect their access to psychological and social support from those around them. They evidenced a need to focus on themselves, or on their close family as reasons for their reduced compassion for others.

''... that's the really isolating thing; the people, ... someone in our village, was really nice, asked me if I was alright, but I just couldn't really (make the effort to) speak to her. I need time away from pretty much everyone just to regulate myself' (P14)

'*Sometimes people think I'm rude, so I've been removed from certain groups that I've found supportive". "I do struggle a bit with the unspoken aspects of friendships, the expectations, but I just think it's kind of obvious, you know what I meant, but I didn't say it. And then it's like, resentment as well'. (P11)*

'I don't have much left after children and really, at work I have to be a certain person, and that then means that I don't have too much left (for colleagues)'. (P6)

'I can be quite socially challenging, and sometimes I'll make plans and then cancel or not go. But I'm also making the best use of the time I have'. (P18)

The mothers in this study evidenced the value they gained from empathy, acceptance, and emotional support from the people in their networks, as well as the exchange of ideas and knowledge from which they gained practical use, solace, and support.

''I don't feel I've got very many friends, but I've generally enough...It's a small group that you can actually rely on, they're so important (P9)

The importance of belonging and acceptance among mothers was insightful. Conversely, the impact of misunderstandings, social exclusion, and loss of support from others could be concerning for them. This was particularly evident in mothers with limited social connections. Mothers with greater social connections, more extensive, or close social connections, appeared to be more capable of dealing with routine stressors and coping with daily tasks and challenges.

Immediate Family Support

Immediate family support, alongside wider family support from grandparents and siblings, emerged as an important psychological, emotional, and practical resource for mothers. Where relationships with partners and family members were supportive, this provided mothers with opportunities for respite, shared parenting responsibilities, and time away from the demands of motherhood. For example, P4 described how effective co-parenting with her children's father provided regular opportunities to reset and engage in activities for herself.

'*Me and their dad co-parent really well now. So, he lives in the same village. So, I get two days off each week, and not necessarily the same two days. But because of the dynamic that he and I have, that's like my reset. So, like he'll have the kids say on a I don't know, Thursday, Friday. So, I haven't got that school run and putting them to bed and their tea. I actually get like couple of hours, right, to get to sit and do something for myself' (P4).*

This account highlights how practical support from immediate family could also have an important psychological function, providing mothers with much-needed respite from the ongoing responsibilities of caregiving and enabling them to prioritise their own needs. However, such support was not consistently available to all the mothers. For some, relationships with immediate family members were characterised by a lack of understanding, emotional distance, or limited opportunities for support. P9, for example, described feeling that her experiences were not believed or validated by her family.

"*I sometimes think she just thinks I'm making it all up. It's the same with my siblings, and I wish I had a closer relationship with them" (P9).*

Thus, while immediate and wider family networks could provide valuable resources, the availability and quality of these relationships varied considerably. For mothers who lacked supportive family relationships, the absence of this resource could contribute to feelings of isolation and leave them with fewer opportunities for emotional validation or practical respite.

Physical and mental challenges

Poor health was not a dominant theme across the interviews, however, several mothers described physical and mental health challenges that appeared to disadvantage them. Menopause, mental illness, depression, and diagnosed or self-diagnosed neurodiversity were the most frequently evidenced concerns. For some, hormonal changes associated with menopause were linked to fluctuations in mood and wellbeing, while others described feeling mentally drained or experiencing periods of significant depression. For example, P3 described the impact of entering menopause and the use of hormone replacement therapy (HRT) to manage associated mood changes.

'*I feel like I'm entering menopause, and I've had blood tests to confirm it. I'm on HRT [medication] to help with like mood issues because they can be worse certain times each month' (P3).*

Similarly, P5 described the cumulative mental demands of everyday life.

'*But, you know, there's always something that needs to be doing, and usually, mentally, I'm quite drained' (P5).*

For P14, previous experiences of depression were particularly significant. While reflecting positively on their circumstances, they acknowledged the severity of their recent mental health difficulties

'*What else for positives? I'm still on this planet, and I haven't shuffled off. I think I'm quite fortunate to still be around, having been very depressed in recent times' (P14).*

Taken together, these accounts suggest that physical and mental health challenges were not necessarily experienced as discrete barriers, but could shape their emotional capacity, energy, and ability to manage the demands of everyday life. The findings therefore indicate that, although poor health was relatively uncommon across the sample, for those affected, it could contribute to a sense of disadvantage and compound other challenges experienced.

Cognitive resources

Cognitive resources refer to the mothers' capacity to process and make sense of complex circumstances, think through problems, and develop practical or creative ways of responding to challenges affecting themselves or their children. These resources involved recognising when problems had no straightforward resolution, identifying what could realistically be changed, and prioritising where to direct limited time and emotional energy. Cognitive resources therefore supported mothers in maintaining a sense of agency and control, even when structural or situational circumstances constrained the solutions available to them. For some mothers, this involved sustained cognitive effort to navigate complex systems and identify alternative ways of meeting their children's needs, despite recognising that adequate solutions were often unavailable.

"*A lot of the complex issues that we are dealing with have no resolution. So, things like how to access social care that is going to meet my son's needs. There isn't any and we spend a lot of time thinking about innovative ways, but there just isn't one because there aren't the solutions enough. You have to really pick your battles" (P11).*

Here, cognitive resources were evident in the mother's efforts to consider 'innovative ways' of addressing an unresolved problem, alongside her ability to recognise the limits of what could realistically be achieved and strategically pick her battles. This suggests that cognitive resources extended beyond problem-solving alone to include the capacity to appraise circumstances realistically and make decisions about where cognitive effort was most worthwhile. For others, cognitive resources were reflected more simply in feeling able to remain organised and manage competing demands.

"*…[I'm] on top of things mostly" (P8).*

This sense of being 'on top of things' suggests a perceived capacity to monitor and manage circumstances effectively, providing a sense of control amid the demands associated with parenting and responding to difficulties. Cognitive resources could also involve making sense of circumstances through a focus on children's wellbeing. For example, P4 described her children's happiness as shaping her own perception of whether life felt manageable.

"*You just wanna make sure your kids are happy, because when they're happy, then I feel happy, and life doesn't seem a problem" (P4).*

Here, the mother appears to use her children's emotional wellbeing as a reference point through which she evaluates her own circumstances. When her children are happy, difficulties become more manageable. Overall, these accounts demonstrate that cognitive resources involved not only the ability to think through and respond to complex problems, but also the capacity to prioritise concerns, assess what was achievable, and maintain a workable sense of control when circumstances were difficult or solutions were limited

Psychological resources

Psychological resources captured the mothers' mental and emotional strengths, alongside their perceived or actual psychological difficulties. These resources related to their capacity to manage stress, regulate their emotional responses, maintain a positive outlook, and psychologically adapt to the ongoing demands of their circumstances. However, accounts also indicated periods of psychological strain and reduced capacity to manage persistent stressors, suggesting that these resources were not static and could become depleted over time. The continuous nature of caregiving demands was described as contributing to considerable psychological pressure, particularly through the persistent 'mental load' associated with caring responsibilities.

"*It's highly stressful, and it's constant, it's 24/7 and then, it's the mental load. It's just always there. I make more of an effort to make sure I get time to myself." (P4).*

This account illustrates both psychological strain and an active attempt to preserve psychological capacity through time away from caregiving demands. Similarly, P2 described a fluctuating ability to maintain a positive outlook, while recognising the importance of psychological work in developing strategies to manage difficulties.

"I try and be positive, but I don't always feel very positive, but hey, we are where we are, and it is what it is. I've done a lot of work and therapy to be able to utilise these things in a positive way." (P2).

Here, psychological resources appeared to encompass not only an existing capacity to cope, but also skills and strategies that the mothers had developed over time. Therapeutic support was described as contributing to this capacity by helping them recognise and use psychological strategies in more positive ways. The importance of withdrawal and recovery time was further evident in P2's account.

"*I need time away from pretty much everyone just to regulate myself. It means we have very little time to spend as a family." (P2).*

This suggests that psychological regulation sometimes required them to create physical and emotional distance from others. Although this provided an important means of managing their own psychological needs, it could also have consequences for family life, highlighting the tension between maintaining individual psychological capacity and sustaining family relationships.

Mindfulness

Mindfulness emerged as an important resource for the mothers, particularly in relation to how they approached and responded to the challenges associated with parenting neurodivergent children. Their accounts reflected a shift towards greater acceptance of their circumstances, reduced judgement, and a more measured response to experiences that were often outside their control. Rather than suggesting that difficulties had disappeared, mindfulness appeared to provide the mothers with a different way of relating to these difficulties, enabling them to respond with greater calm, perspective, and self-acceptance. For some mothers, this was reflected in a more positive and intentional approach to each day. P12 described how this change had altered her overall outlook.

'*I'm okay now. I start every day with a positive mindset. I don't feel like I'm on a constant treadmill of having to fight everything, which is what life was like. [Now] I'm in a place where you can react to things in a more laid back and sort of measured way' (P12).*

This suggests that mindfulness may have supported a transition away from a reactive mode of coping towards a more deliberate and regulated response to everyday challenges. The mothers also recognised the particular relevance of mindfulness within the context of parenting children whose lives could involve considerable uncertainty and limited parental control. P5 explicitly connected mindfulness with the realities of parenting neurodivergent children, stating

'I think mindfulness offers amazing benefits to many people who have lives with so many things outside their control. Certainly, as a parent with neurodiversity children with lives they can't control' (P5).

Here, mindfulness was understood not as a means of changing difficult circumstances, but as a resource for accepting and navigating what could not be changed. This reflects an important aspect of the mothers' experiences, wellbeing was not necessarily associated with the absence of difficulty, but with developing ways of responding to difficulty that felt more manageable. Mindfulness was also evident in the mothers' appreciation of ordinary moments of calm and contentment. P4 described the competing demands of everyday family life

'*You know, days are hard and busy and full on and fun but also tiring.' However, alongside this recognition of exhaustion, she valued periods of quiet and connection: 'I like the quiet evenings when everyone's gone to sleep and I'm just relaxing on the sofa with my husband' (P*4).

This highlights how mindfulness may involve attending to and appreciating small moments of respite within otherwise demanding routines. Such moments appeared to provide opportunities to pause and experience contentment without the need for circumstances to be entirely free from stress.

Personal skills

Several mothers linked their self-perceived levels of personal skill to their intellect and formal education.

'... [I'm at a] bit of an advantage when it comes to fighting the battles against the system ... I put the success down to my academic ability to look at the problem analytically. You know, this is what I need to do to solve the problem and then having the writing skills to be able to put that down in writing and to communicate effectively by email' (P15).

Although this was evidenced in data from several mothers, it was not clear from the wider data, which instead, suggested a greater association with the mothers' work and life experience. Where formal education did appear to have a bearing on personal skills, this was more evident in mothers research skills, their reported success in communication with authorities, and more formal advocacy tasks such as completing paperwork and applying for grants.

"So, a lot of my time is taken up fighting for them and being their advocate, going in and saying that he or she not coping with something, and please could we try this…." (P10).

"….. and spend three hours filling out EHCP application forms, or things like the DLA forms you have to do. The DLA is a 48-page document about your child's needs, and I've had to do five of those, plus all the renewals, plus the PIP one" (P7).

The findings of this study underscore the challenges and complexities of forming, maintaining, and exploiting social networks in mothers of neurodivergent children. Although social connections varied and were not always positive, the associations could provide psychological comfort, encouragement, reassurance, friendships, and practical advice, which helped mothers undertake their daily challenges.

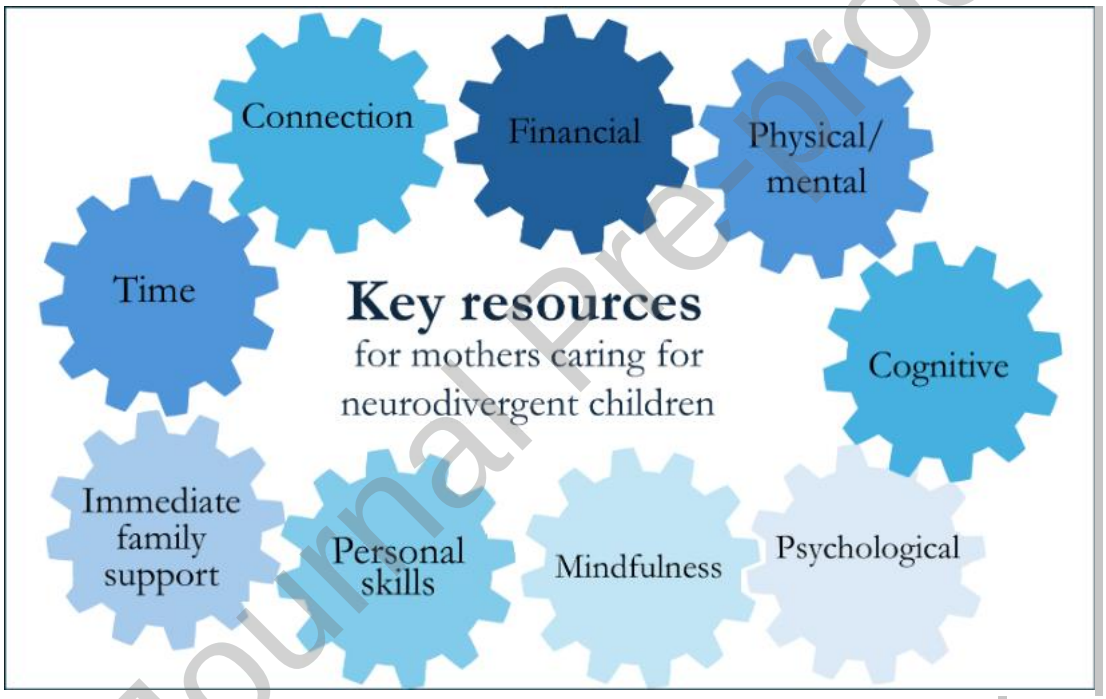

Figure 1: Key resources for mothers caring for neurodivergent mothers

Discussion

Parents caring for children with neurodivergent conditions routinely experience difficulties and hardships (D'Arcy, 2023) and the challenges they face are unique (Reddy et al., 2019) and more significant than those faced by other parents (Cousineau et al., 2019). This leads to higher levels of parental anxiety than controls (Amorim et al., 2020). Under such circumstances, maintaining and increasing resilience is vital for parents to successfully deal with the adversities they encounter (Cousineau et al., 2019).

The most limited resources identified among mothers in this study were mindfulness, psychological skills (focused on sympathy, empathy, and compassion), time, personal skills (the capacity to effectively address issues, often related to their children), and social connection skills. However, inadequate levels of each of the resources were only evident in mothers with

weaker resource caravans. Despite this, even mothers with more effective resource caravans appeared to have weaker time, psychological, financial, and mindfulness resources. This suggests interventions should particularly seek to bolster resources of time, psychological, with social connection skills, personal skills, mindfulness, and finance. Each mother in this study had different support requirements, suggesting that support for parents in all these areas should be provided appropriately to meet specific needs. The benefits of support approaches have also been noted in recent studies (D'Arcy, 2021; Shepherd et al., 2018; Tollan et al. 2023; Vaz et al., 2022). In terms of beneficial resources, the mothers in this study mentioned the benefits they had or would like to have had from access to a local drop-in centre that allowed them to have a quiet space for themselves. In such a space, they could work or relax while their neurodivergent children were supported by competent care staff, either nearby or in well-devised community activities. Other mothers in this study valued and wished to access people who did not judge them or their children and were knowledgeable and willing to provide help and support. Many were keen to have the opportunity to meet and socialise with their peers in an appropriate environment. They experienced benefits from talking about their children, themselves, and their problems, or exchanging knowledge, information, and experiences, knowing that their children were safe, cared for, and accessible to them.

Figure 2 proposes that time is a fundamentally important resource for mothers caring for neurodivergent children. Vasilopoulou and Nisbet (2016) found that supporting neurodivergent children leads to time pressures that affect parental well-being. Mothers in this study suggested that more effective use of time helped them improve their well-being, and knowledge, and increased their social connection and acceptance, positive effect, and goal achievement. Evidence suggested that this generally resulted in improved practical and psychological support, personal capacity, and happiness, hope, improved advocacy for children, and happiness. These outcomes add weight to the results of prior research by Okada and Hoch (2004), Scholer and Higgins (2012), and Pfeffer and Carney (2018). The temporal capacity and benefit of time is acknowledged in regulatory mode through its contribution to goal achievement (Kruglanski et al., 2016). In COR theory, it is considered essential for resource protection and generation (Bell et al., 2020; Neveu et al., 2024).

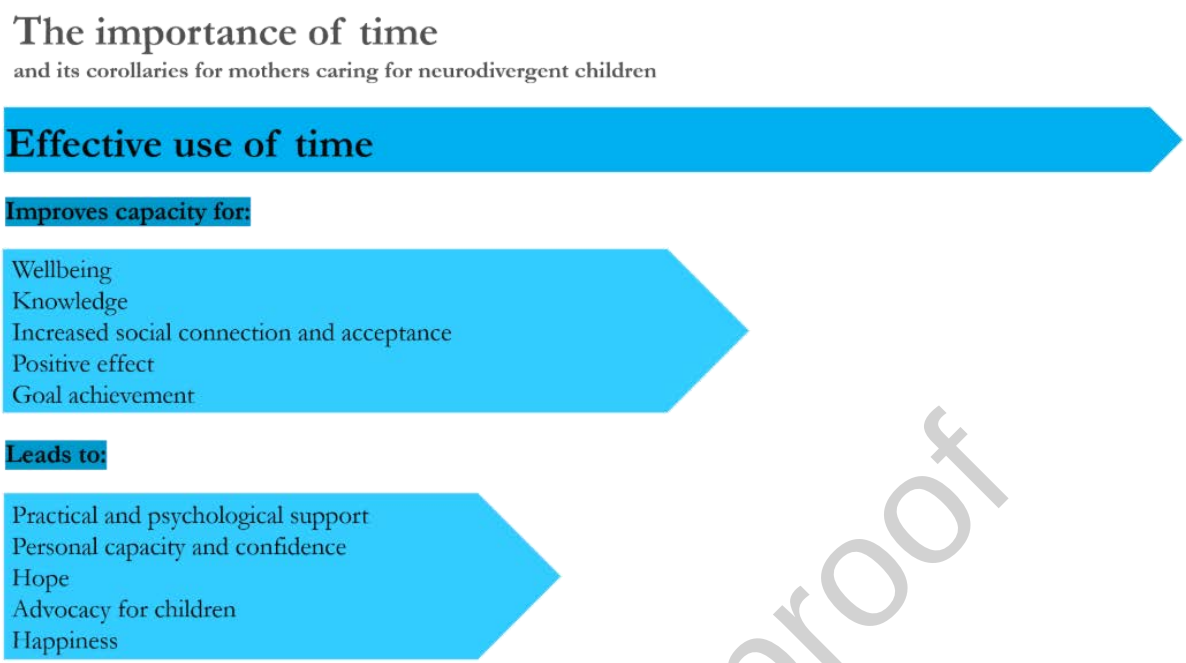

Figure 2: The importance of time to mothers caring for neurodivergent children

Supporting neurodivergent children leads to time pressures that affect parental well-being (Vasilopoulou and Nisbet, 2016). For mothers in this study, more effective use of time led to positive affect, goal achievement, and well-being, and facilitated greater social connections. This generally resulted in greater support, personal capacity, and happiness. These outcomes support the results of prior research by Okada and Hoch (2004), Scholer and Higgins (2012), and Pfeffer and Carney (2018). The temporal capacity of time is acknowledged in regulatory mode through its contribution to goal achievement (Kruglanski et al., 2016) and in COR theory it is considered essential for resource protection and generation (Bell et al., 2020; Neveu et al., 2024).

The findings from this study suggest that supportive relationships are important for mothers to help with effective functioning, self-efficacy, well-being, and hope, which endorses the work of Halstead et al. (2018). Social networks provided opportunities to talk about struggles and seek comfort in a stigma-free environment through shared experiences and empathy. This reflects recent research, including studies by Battanta et al., (2024), and Lancaster et al., (2023). The negative effects of poor support for parents caring for neurodivergent children have been shown to limit social activities due to stigma and discrimination (Lovell and Wetherell, 2019; Reddy et al. 2019; Zuurmond, 2019). Negative outcomes such as these were notable in mothers in this study and highlight the need for support initiatives that incorporate mechanisms to help parents deal with negative attitudes, develop effective assistance from close and wider families, and maintain and develop opportunities for community, social, and workplace support and understanding.

Several mothers who appeared more resilient and better able to develop positive coping, highlighted the importance of accessing information and developing knowledge about their children's conditions. Statements made by the mothers suggested that developing greater understanding through personal research and discussion enabled them to make informed decisions, anticipate challenges, and respond more effectively to changing behaviours as their

children matured. Comments from the mothers indicated this knowledge strengthened their coping strategies, increased their confidence in seeking support, and enhanced their ability to advocate for their children. Notably, mothers who felt more capable of accessing information were also more optimistic about the future and expressed greater hope.

Prior research has identified caregiver frustration from unmet information needs (Dalmer, 2020; Weissheimer et al., 2020; Toms, 2019), which are considered an onerous but necessary element of parenting (Laurin and Andersson, 2024). Mothers in this study routinely talked about finding it difficult to understand what options were available to them and their children, and several expressed concerns about what the future may hold, because of this. Although information and advice were sought from personal and online sources and networks, mothers said they were frequently left unable to make clear decisions or be confident about whet the future may bring.

Information was often required for compiling background information for application paperwork or preparing for discussions and negotiations with their child's school, teachers, or with local authorities. Laurin and Andersson (2024) found that the time needed by mothers to prepare information, and navigate the processes, along with the emotional demands of sharing it to mediate with institutional providers to advocate for their children created stressors. Battanta et al. (2024) found that most parents experienced a challenging, protracted, and exacting diagnostic process.

Interview evidence from mothers in this study indicated that institutional systems and processes placed significant demands on mothers' already-limited resources as they navigated complex procedures and advocated for their children. Lengthy correspondence and form-filling, alongside stressful discussions and negotiations with schools, local authorities, and healthcare providers, were identified as significant stressors. These system demands placed further strain on key resources, often to excess. Key resources specifically included time, social and family support, finances, physical and psychological health, cognitive capacity, mindfulness, and personal skills. Mothers mentioned valuing guidance and practical support from others in navigating these barriers, with some reporting that they considered their limited financial resources well spent when used to obtain assistance with advocacy. Inevitably, committing limited and already stretched resources to addressing institutional demands left the mothers more open to stressors, and ultimately, stress.

Recent support interventions for parents caring for children with neurodiversity's, and special needs, have led to the development of programs that prioritise families (McConkey et al., 2023). Successful examples have been community- and home-based (Zuurmond, 2019; Mullan et al., 2021), utilising system-based approaches (Guralnick, 2023). The focus has been on early intervention to enhance parental confidence and ability through better information, knowledge, and community and social connections, alongside child development initiatives (Amsbary and Able, 2023).

There is increasing emphasis on mindfulness- and compassion-based interventions to support parental well-being and resilience through adaptive stress appraisal and coping (Cousineau et al., 2019). Conceptually, mindfulness can be considered a versatile intrinsic personal resource that supports resilience and facilitates the protection and generation of other resources such as confidence, self-efficacy, and optimism (Xanthopoulou et al., 2009). Studies have also concentrated on mindfulness as a capacity for self-regulation (Isbel and Mahar, 2015; Ruocco and Direkoglu, 2013). Reina and Kudesia (2020) posited that people's mindfulness is not fixed

or stable but arises from the individual and their situation, which suggests that people would benefit from routinely available help, and support as and when their situations change. This type of resource contributes to perceived self-identity and social status, thereby influencing an individual's hopes or despair (Hobfoll et al., 2003).

The corollaries from the most limited resources on the mothers in this study led to the development of five key capabilities and capacities from which mothers caring for neurodivergent children may benefit. These are mindfulness, time, knowledge, compassion (encompassing self-compassion and compassion for others), and financial skills. These capabilities and capacities were linked to the most strained resources for the mothers therefore helping them bolster these resources through bespoke interventions appears to be particularly beneficial.

A schematic of these five key capabilities and capacities is shown in Figure 3. At its heart is the promotion and maintenance of a close immediate family (shown at the centre of the right oval). To achieve this, support initiatives should develop the four primary capabilities and capacities identified within the oval, focusing on the six broader skills shown in the rectangle to the left of the oval. These skills broadly reflect the most strained resources of the mothers in this study: mindfulness, psychological, time, personal skills, social connection, and finance.

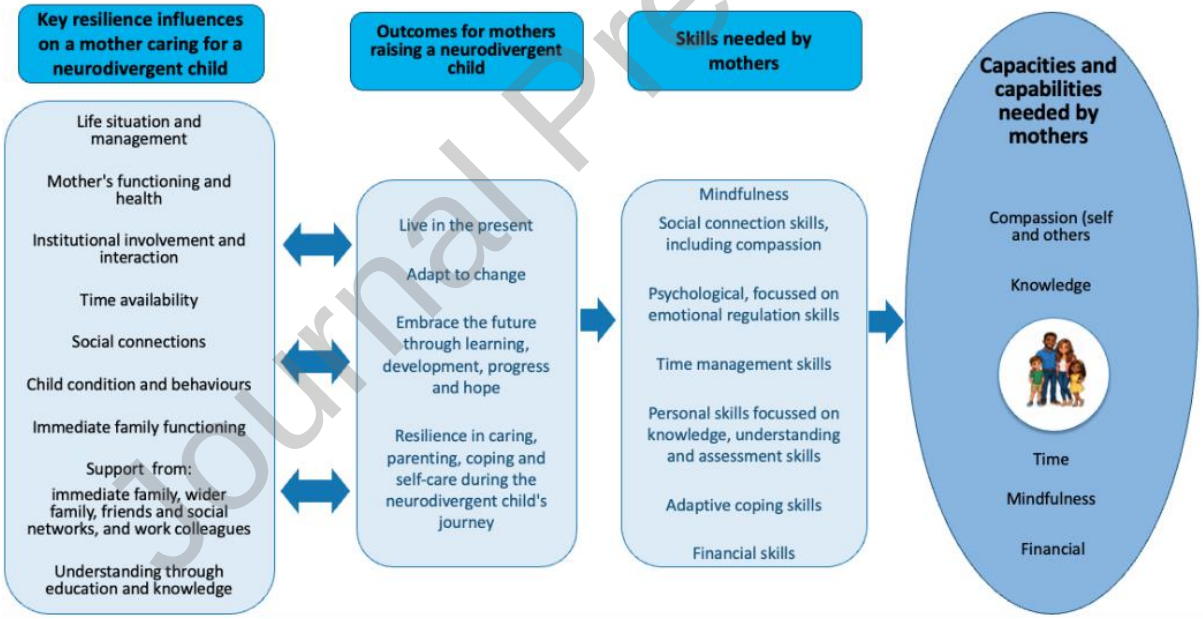

Figure 3: Schematic of issues and needs to identify interventions to support mothers caring for neurodivergent children

Outcome goals of living in the present, adapting, embracing the future through learning, development, progress, hope, resilience in caring, and self-care, are identified as the mother's requirements during their journey raising a neurodivergent child. These were derived from evidence of what was specifically helpful to mothers. The outcomes were facilitated by mothers' collective skills, particularly those identified as the skills most needed by them. In the left-hand rectangle of (Figure 3), situational demands and interactions that affect and result from the mother's journey while raising neurodivergent children are identified and linked

bidirectionally to the outcome goals, affecting and being affected by those outcomes. These demands and interactions incorporate life situation and management, mother's functioning and health, institutional involvement and interaction, time availability, social connections, child's condition and behaviour, family functioning, and support.

COR theory posits that resource preservation and generation are essential in the presence of stressors to prevent further resource depletion and effective post-stressor interventions (Westman et al., 2004). Increasing resources to develop and strengthen resource reservoirs is crucial for mothers caring for neurodivergent children to protect against new stressors, promote well-being, and maintain and develop resilience. Interventions should therefore aim to prevent resource loss but also target resource augmentation and conservation when losses begin (Ren et al., 2023). Interventions should also draw on those aspects of regulatory mode, specifically locomotor approaches that support goal achievement. This support need not be complex but is likely to include planning and prioritizing using to-do lists, planners, time-blocking, and tackling key tasks first. Time management strategies, potentially including use of the pomodoro technique, time auditing, and batching could be taught whilst mindful time management approaches may include focusing on one task at a time, avoiding distractions, practicing time awareness, learning to say no, and scheduling breaks to focus productivity.

Developing support interventions

Using the findings from this study and cognisant of developing practice, support interventions need to help mothers and, more broadly, parents with their time management, knowledge acquisition, compassion, and mindfulness. These are the key caregiver capacities and capabilities identified in this study. Establishing nine key resources for the mothers in this study was important not only because these resources do not appear to have been identified previously, but also because they form the foundation for understanding the skills needed by mothers caring for neurodivergent children. The development of a practical framework, proposed below, tis a new application for COR theory and regulatory mode theory, as prior literature in literature in the two psychological frameworks does not appear to have considered this cohort of caregivers. Using COR and regulatory mode to develop initiatives to support mothers caring for neurodivergent children may present a particularly significant and valuable contribution to both theories by extending the application of both frameworks and broadening the scope of how they can be applied. The contribution of this study is enhanced by its practical potential, relevance, and possible applicability to other cohorts of mothers, parents, other caregivers, and potentially other agencies, and perhaps employers.

Modes of support and skill development

Mindfulness development can be provided to groups, or individuals, and through a variety of means to suit personal needs. Psychological support may generally be provided through active listening, offering non-judgement support, encouragement of self-care, practical help to reduce parents load, or professional help such as therapy or counselling. Time support may for example be provided through better understanding of how to manage expectation, and time management techniques. Personal skills development might be through information, education and practical support in, for example, how to source relevant information, and complete application paperwork for themselves or their children. Social connection would develop through meeting others who are experiencing similar challenges in a low stress, non-judgemental environment.

Income appeared to not be amongst the major concerns for mothers in this study, although finance was frequently raised and apparently impacted aspects of their lives. The concept of having enough money was essentially a relative concept, and no doubt all the mothers would have welcomed additional income. Of the 19 mothers, 14 did not express concerns with finances "[We have] *sufficient family income to live effectively and adequately. We're doing OK"*. (P.9). Six of those 14 stated they augmented finances with allowances or other support *"We have enough money to live OK, but tax credits and the DLA are needed"* (P.4). Four of the 19 mothers said their finances were adequate or not always good "*Finance is adequate rather than good*" (P.16). One stated their income was not adequate at the time of the interview. Notwithstanding the level of concern expressed, the frequent references to finance, and accessing financial support by some mothers, would suggest that access to financial advice would be advantageous in any support initiative.

Guided by successful prior interventions, future schemes should be delivered promptly once a condition is diagnosed or suspected to secure the benefits of early support (Amsbary and Able, 2023). Assistance must fit the family's microsystems, ethics, and preferences. This is best achieved through flexible approaches to advice, education, training, mentoring, and coaching (Amsbary and Able, 2023) whilst being mindful that families are experts in their children's lives (Cuenca-Sanchez et al., 2024). Adopting a tailored, parent-led approach will allow parents to play a central role in decisions about intervention strategies to best meet their needs (Amsbary and Able, 2023). Interventions need to be provided in a supportive client-centred social setting, which is stress-free, and efficiently coordinated, to not waste participants' time (Darc'y et al., 2021) and all interventions must focus on the needs of users, rather than providers (Amsbary and Able, 2023).

This study envisages support provided locally by charities in existing appropriate facilities. Several of the mothers interviewed spoke positively about support received from local charities specialising in neurodiversity's. These charities already exist, and volunteers with these charities were reported to be parents with neurodivergent children. The value of the assistance, knowledge and practical and psychological help provided by those charities and the individual volunteers, suggested that they would be ideal providers to coordinate support initiatives, if provided with a template for action. Any support plans and caregiver targets would need to be developed and agreed in partnership with the parents, owned by the caregiver, and routinely reviewed. Interventions must always support whole family functioning and recognise that parents need to focus on their other children as well as their own self-care. This self-care can be supported during periods when children are involved in well-organised care nearby, or elsewhere in community activities.

McConkey et al. (2023) found that parents became better informed through practical advice, achieved by addressing the participants' information and knowledge needs, which was a common requirement for the mothers in this study. They valued sharing information, practical support, connecting with others, and accessing initiatives that could provide help and assistance. Mothers who were better-informed and more knowledgeable had greater self-confidence and were more competent at self-advocacy and support seeking. This appeared to be due to self-development derived from an improved understanding of their child's condition and the often-complex application processes that they needed to navigate. Mothers valued their local community, friends, and peer parents, garnering emotional and practical support from others and those with greater social connections appeared to be more resilient and had more positive resource situations.

Support Initiatives

Evidence in this study suggests that mothers with pre-diagnosed children experience the same, or potentially greater challenges than mothers post diagnosis. A diagnosis can take many years, therefore parents with potential conditions should also be considered for inclusion in any support initiatives.

Support initiatives are frequently not complex or extensive. Positive results have been recorded from relatively brief fixed-term, individualised parenting programs, often in resource-poor settings (Manohar et al., 2019; Tellegen and Sanders, 2014; Zand et al., 2018; Zuurmond et al., 2018). Zuurmond et al. (2018) reported on a 12-month programme provided by local support groups in Ghana. It demonstrated a relatively straightforward intervention in which facilitators took a one-week course to provide them with the basic knowledge and skills needed to support parents. The intervention led to significant improvements in caregivers' knowledge of their child's condition, they developed improved critical thinking, problem-solving, and personal well-being. Resultant higher levels of peer support within their groups resulted in the developing caregivers' feelings of hope.

Other studies have identified effective approaches to help parents cope more positively, create resilience, and deal with stressors through cognitive behavioural group therapy (CBGT). CBGT is a psychological intervention for improving mental health (Ecclestone et al., 2015). Relatively short intervention periods can have positive psychological effects on mothers of children with autism, reducing their distress, and improving coping skills towards stressors (Izadi-Mazidi et al., 2015). Iadarola (2018) found that parent training (PT) can help reduce disruptive child behaviour, increase parental competence, and decrease stress and strain. Interventions such as PT and CBGT could be useful components of interventions to support mothers caring for neurodivergent children.

Threeboom et al. (2017) found that coaching led to positive emotions and self-efficacy, which supported adaptive strategies through the broaden and build concept. This concept is reflected in the work of Wei et al. (2021) highlighting the complementary impacts of positive emotions such as gratitude and positive attachments in creating positive resource spirals that enhance well-being. Positive engagement with life and acceptance of limitations led the mothers in this study to become more optimistic about the future, giving them hope. They were more resilient when they engaged positively in their lives, and better appreciated the difficulties faced by those around them. While the mothers continued to face challenges, they appeared to be more able to deal with the stressors that those challenges brought and could focus greater self-compassion on themselves and their children.

Interventions for mothers caring for neurodivergent children should nurture compassion, social connection, and caring by the mothers for both themselves and others. The concept of self-compassion extends care and kindness towards oneself during distress; compassion for others addresses feelings for others, with the willingness to understand and relieve their suffering (Goets et al., 2010). Compassion interventions can reduce social isolation by developing the capacity for connection (Neff and Faso, 2014) and can support resource development to shield against stressors that affect health (Seppala et al., 2013). Social support is a resource that can enhance relationships, understanding, and compassion in family and non-family settings, reducing affiliate stigma (Cousineau et al., 2019). This study found that mothers caring for neurodivergent children generally felt most comfortable with peer parents who faced similar uncertainties, challenging child behaviours, isolation, and

stigmas. Associating with others who have similar experiences within a safe, sympathetic community also supports contact with others to develop supportive networks for practical and emotional help. These are likely to be important elements for inclusion in support initiatives.

This study identified mindfulness and compassion as two of the key capacities and capabilities needed by mothers caring for neurodivergent children. Self-compassion is positively associated with adaptive emotion regulation and mental health (Inwood and Ferrari, 2018). Mindfulness and compassion contribute to social connection, and are negatively related to stress (Nicklin et al., 2019). Cousineau et al. (2019) reported on benefits from mindfulness interventions combined with compassion-focused interventions, which focused on self-sympathy and sympathy towards others in the context of suffering and conflict. For mothers in this study, the demands of caregiving could overwhelm their mental and physical resources, limiting their capacity for self-care; consequently, supporting the development and maintenance of mindfulness has been identified as a key, and important means of enhancing maternal wellbeing. Compassion- and mindfulness-based interventions can help develop adaptive coping, resilience, adaptive stress appraisal, and emotion regulation in parents caring for children with chronic conditions including neurodevelopmental disorders (Cousineau et al., 2019). CBGT can be provided virtually or through mindfulness-based self-help initiatives via digital means, books and audio resources (Taylor et al., 2021).

Mothers in this study consistently talked about not having time to do everything they needed. In line with Forster et al. (2023) and Schilbach et al. (2023), the findings of this study demonstrated that perceived control over time positively influenced distress, suggesting that time is an important resource for individual resilience. Advice and parent training should facilitate an understanding of the importance of time use, and techniques for its management, and coordination. This education could draw on peer parents who are already able to manage their time effectively as managing time to make best use of it is an essential support component.

The mothers in this study relevant information were difficult to access, fragmented or not routinely provided. Information (Laurin and Andersson, 2024) is a vital component of neurodivergent childcare, but caregiver dissatisfaction with unmet information needs is common (Dalmer, 2020; Weissheimer et al., 2020). Parents require, and search for information on diverse issues to make choices for their children (Lacelle-Webster et al., 2018; Mansour, 2021; Weissheimer et al., 2020). Information and knowledge could be made available and effectively delivered through a mix of available support, and peer parents. Other specialist inputs, such as financial and legal advice could also be made available through peer parents or prior arrangement with specialists.

Evidence from the mothers in this study suggested that they valued helping other parents with neurodivergent children, both formally and informally. They felt it gave them a greater purpose and improved their perceived self-worth and self-efficacy. Information develops knowledge capacity and capability, and knowledge and information can be effectively provided through organised support initiatives and networks, with contributions from peer parents.

Limitations and future research

This study had several limitations. All the mothers interviewed lived in the United Kingdom, except for one, and all except one were white. Thus, the generalisability and representativeness of this study's findings may be restricted. Some mothers in this study reported that they were also neurodivergent. This could be significant, as neurodivergent parents generally face greater

struggles in life and deal with stressors differently than do non-neurodivergent parents (Dugdale et al., 2021). The importance of this is that ADHD behaviours can include inattention, hyperactivity, time-blindness, and forgetfulness. ASD behaviours include communication problems, preferences for routines, challenges with communication and social signals, social overload, and isolation. These traits and characteristics may affect behaviours, which in turn may influence regulatory mode traits, such as focus, commitment, social connections, and routines. In addition, people who were not part of Facebook or the social media groups reached in this study would have been excluded due to access to the flyers. This may have created a recruitment bias. Also, literacy may have resulted in parents' exclusion if they were not able to read. Parents who did not have childcare cover, or support to attend an interview may have excluded. Finally, UK publicly funded healthcare may limit international transferability to countries without government provided care for children.

Conclusion

This study established that COR theory and regulatory mode can be used as the basis for establishing a practical and effective initiative to support mothers caring for neurodivergent children. This appears to be a new application for COR theory and regulatory mode. The development of a proposed framework to support such mothers presents a particularly significant and valuable contribution, extending the application of both frameworks and broadening the scope of how the two can be applied.

The findings suggest that actionable, low-intensity interventions, specifically, drop-in skills support, virtually delivered or face-to-face compassion-focused therapy, and CBGT, along with peer-parent mentoring, time-management, and system-navigation training, could be implemented by charities, and community organisations without extensive specialist infrastructure. For mothers, such supports may enhance emotional regulation, self-efficacy, and resilience, while reducing the burden of navigating institutional systems in isolation. For children, benefits would likely be indirect, mediated through improved maternal wellbeing and advocacy capacity. These will in turn support more consistent and responsive caregiving. Implementation responsibility should ideally be distributed across statutory services but are more likely to be taken forward through charitable and community organisations, and peer-parent networks. Future research should prioritise rigorous evaluation of the long-term impact of community-based charity, and peer-led delivery models, and which support combinations yield measurable, sustained improvements in maternal and child outcomes. This contribution is enhanced by the proposals practical value, relevance, and potential applicability to other cohorts of mothers, parents, other caregivers.

Conflict of interest statement
All authors declare no conflict of interest.

Data availability statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Declaration of Competing Interest

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