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ORIGINAL ARTICLE:

Reimagining Institutional Care: Children's Emotional Well-being, Caregiver Readiness and Policy Pathways for Social Prescribing in Pakistan

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ABSTRACT

OBJECTIVE

To examine the emotional and behavioral difficulties of children living in institutional care, assess the well-being of their caregivers, and explore the potential of social prescribing as a community-based intervention within these settings.

STUDY DESIGN

Mixed-methods descriptive study.

PLACE & DURATION OF STUDY

The study was conducted over six months across four institutional care facilities in Punjab, Pakistan.

SUBJECTS AND METHODS

A total of 263 children aged 11–17 years and their caregivers participated. adolescents' emotional and behavioral health was measured using the Strengths and Difficulties Questionnaire (SDQ), while caregiver well-being was assessed through Section 4 of the Orphans and Vulnerable Children (OVC) Caregiver Tool. Focus group discussions were held with caregivers to explore their openness to social prescribing, an approach where mental health professionals recommend structured social activities—such as physical, cultural, or nature-based programs—to be implemented by social workers or volunteers. A SWOT analysis was conducted to identify contextual strengths and barriers.

RESULTS

Children showed marked emotional and behavioral difficulties, with variations between institutions. Prosocial behavior was weakly but significantly negatively correlated with total difficulties ($r = -0.1525$, $p = 0.016$), and age emerged as a significant predictor of difficulties (coefficient = 1.89, $p < 0.01$). More than half of caregivers (51.52%) reported recent illnesses, indicating strain on their well-being. Caregivers favored community-based referrals, recreational opportunities, and educational programs for children.

CONCLUSION

Introducing social prescribing may help address the emotional challenges of institutionalized children while supporting caregiver well-being and strengthening caregiving practices.

KEYWORDS

Social prescribing, Community-based interventions, Child resilience, Trauma-informed care, Strengths and Difficulties Questionnaire (SDQ), Policy and practice reform

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INTRODUCTION

Social Prescribing has the potential to enhance psychiatric, psychological, and behavioral care by offering personalized support through community-based practical interventions[1]. It is a non-clinical approach which connects individuals to personalized support through community-based resources and activities. By identifying unmet emotional needs and informing policy decisions, this research advocates for systemic change to ensure that every institutionalized child receives the emotional care and resources necessary to thrive.

Institutionalized children face a significantly heightened risk of emotional distress, anxiety, depression, victimization, and delayed socio-emotional development[2]. Despite these known challenges, there remains a gap between their emotional needs and the support provided by caregivers and institutions. This study aims to bridge that gap by exploring the effectiveness of caregiver support and introducing social prescribing as a targeted intervention. Children who have been institutionalized come across many obstacles throughout their lives in modern society, which may give rise to significant mental health issues. Research suggests that about 8 million children are institutionalized worldwide[3]. Around the world, on average, 105 out of every 100,000 children end up in institutional settings[4]. These children not only face discrimination but also lack financial resources and adequate care.

Children in institutional care may come from a range of vulnerable backgrounds, including those who are orphaned, children with disabilities, children from marginalized ethnic groups, children affected by migration, or those from families experiencing extreme poverty. According to research, orphaned children are more vulnerable to severe depression, potentially leading to clinical depression[5]. This further emphasizes the need to tailor interventions to elevate the mental health of institutionalized or orphaned children and to provide them with resources to live a happy and healthy lifestyle. It is difficult for children to articulate emotional needs, particularly the ones who have endured trauma. Attachment theory suggests that a secure relationship with a caring adult is important for a child's healthy development[6]. It is crucial to consider the role of caregivers, who are responsible for taking care of institutionalized children. Understanding the types of support and resources they need is essential, not only for helping the children but also for their well-being.

Negative behaviors are easier to detect but harder to manage. They include aggression whether verbal or physical, towards carers or residents and antisocial actions like theft, substance abuse,

or additional offenses[7]. When these actions are not addressed early on, they can lead to strained relationships and complications in the child's interactions with peers or caregivers. Caregivers may face challenges of their own, preventing them from providing the appropriate emotional support to meet the children's needs[6]. While providing essential care, caregivers may not always be equipped or supported to address the deeper emotional and psychological issues these children face.

This research aims to 1) assess the emotional and behavioral difficulties of institutionalized children, 2) evaluate caregiver's well-being and 3) caregiver's awareness of social prescribing and 4) provide evidence-based recommendations for institutional policies and caregiving practices that integrate social prescribing to enhance emotional care and support for institutionalized children.

SUBJECTS AND METHODS

Participants

The study targets children aged 11–17 who have lived in 4 care institutions in Punjab, Pakistan, for at least six months, along with their caregivers who have been employed for a similar duration. Exclusions include children with severe psychiatric or cognitive limitations and caregivers not directly involved in daily care. A simple purposive sample technique was used for this study. To estimate the prevalence of the outcome of interest in a population of institutionalized children of 1,000,000, the sample size was calculated using OpenEPI software. The required sample size came to 241. Data was collected from institutions housing children affected by loss, abandonment, or trauma.

Instruments

The Strengths and Difficulties Questionnaire[8] also referred to as SDQ was used for evaluating institutionalized children's emotional and behavioral difficulties. A caregiver survey based on Section 4 of OVC - Orphans and Vulnerable Children - Caregiver Questionnaire was utilized to evaluate caregiver's wellbeing (Measure Evaluation)[9]. Focus group discussions further assessed caregivers' understanding of emotional care and social prescribing to be implemented into practice within institutions.

Procedure

This study received approval from the Institutional Review Board (IRB) of BMY Health, Punjab, Pakistan. All procedures involving human participants were conducted in adherence to the

ethical standards of the institutional and national research committees and the principles of the Declaration of Helsinki. Participation was voluntary, and participants were informed of their right to withdraw at any point without penalty.

All participants had given informed consent or assent, and ethical practices like confidentiality and voluntary participation were upheld throughout the study. Pseudonyms will be used to refer to each institution to maintain further confidentiality throughout the study. For children and adolescents under the age of 18, verbal and/or written assent was obtained to ensure their understanding and voluntary participation.

Due to privacy and confidentiality, with participating institutions, children and caregivers, the data underlying this study cannot be publicly shared. However, de-identified data may be provided by the corresponding author upon reasonable request.

Data was summarized using means and standard deviations for continuous variables (e.g., age, SDQ scores, caregiver survey) and frequencies and proportions for categorical variables (e.g., gender, location, institution type, mental health of children). To highlight the relationship between socio-demographic variables and the emotional and behavioral difficulties of children, statistical methods such as regression analysis and correlation were used. A SWOT analysis was conducted for each institution. Additionally, caregiver well-being was analyzed to explore relationships between various institutional characteristics alongside their preference and understanding of social prescribing. Data was analyzed through STATA Version 17 software.

RESULTS

Table 1

Demographics of Institutionalized Children

Category	Subcategory	Freq	Percent
Gender	Female	69	26.24
	Male	194	73.76
Age Group	Under 14	126	47.91
	14-15	63	23.95

	16 and above	74	28.14
Institute	Courage Center	94	35.74
	Hope House	50	19.01
	Grey Haven	94	35.74
	Serenity Home	25	9.51
Education	Primary (till 8th Standard)	126	47.91
	Secondary (till 10th Standard)	63	23.95
	Higher Secondary (till 12th Standard)	74	28.14
	Total	263	100.00
Country	Pakistan	263	100.00
	Total	263	100.00

263 institutionalized children from four distinct orphanages in Pakistan participated in the study. Participants were primarily from Courage Center and Grey Haven, each accounting for over a third of the sample, with the remaining children from Hope House and Serenity Home. The sample was predominantly male (73.8%), with females comprising just over a quarter (26.2%). This gender imbalance reflects broader patterns in institutional care within the region, where boys are often more frequently placed in formal institutions. In terms of age, nearly half of the participants were under 14 years old (47.9%), suggesting that many children enter institutional care at younger ages. However, a substantial proportion were adolescents aged 14–15 years (24.0%), and close to one-third were 16 years or older (28.1%), indicating that institutions also serve as long-term placements extending into late adolescence. Most children had completed primary school, with a smaller proportion reaching secondary or higher levels of education.

Table 2

Demographics of Caregivers present during Focus Group Discussion.

Category	Attribute	Frequency (Freq.)	Percent
Location	Pakistan	33	100%
Age	26-35	15	45.45%
	36-45	7	21.21%
	Less than 25	9	27.27%
	More than 46	2	6.06%
Gender	Female	27	81.82%
	Male	6	18.18%
Education	Higher Secondary (up to 12th standard)	24	72.73%
	Primary (up to 8th standard)	4	12.12%
	Secondary (up to 10th standard)	5	15.15%
Name of Institution	Courage Center	7	21.21%
	Hope House	8	24.24%
	Serenity Home	10	30.30%
	Grey Haven	8	24.24%
	Total	33	100%

Table 2 presented the demographic characteristics of the 33 caregivers who participated in the focus group discussions across the four institutions. In this study, caregivers referred to the staff members directly responsible for the day-to-day care of institutionalized children, including supervision, emotional support, and assistance with educational and social needs. The majority of caregivers were females, and their ages ranged from 26 - 36. Most had completed Higher Secondary education, which is important for understanding their capacity to engage with children's emotional and behavioral needs.

In Pakistan, institutional care is primarily provided through orphanages and child welfare centers, which operate under the government and non-governmental organizations (NGOs). These institutions vary considerably in size and resources, and regulatory oversight. As a result, the quality of care across institutions can be uneven, with some centers offering comprehensive support and others struggling with basic infrastructure and staffing needs.

To better understand this landscape, a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted for the four institutions in the study. This framework provides insight into their internal capacities and external challenges, with particular attention to caregiver burden, mental health support, and the feasibility of integrating social prescribing interventions.

Table 3

SWOT Analysis of Institutions

SWOT Category	Courage Centre	Grey Haven	Serenity Home	Hope House

Strengths	- Large adolescent population (278) with a manageable caregiver ratio (1:9) - 24/7 medical facilities - Balanced meals, advanced classroom tech, leadership programs	- Community service events - Dispensary access - Good hygiene - Education support through PhD	- Low caregiver burden (1:5) - Balanced meals, clean & modern environment - 24/7 hospital access - Strong extracurriculars	- Low caregiver burden (1:6) - Low caregiver mental health issues
Weaknesses	- High caregiver stress and health issues - Cost of high-quality services - Potential over-reliance on caregivers	- Very high caregiver burden (1:25) - Limited recreation - Outdated classrooms - Lack of staff training - No social programs	- Caregiver mental health problems - Dependent on external funding	- Poor diet - No medical facilities - Poor hygiene - Outdated education infrastructure - Recent caregiver sickness
Opportunities	- Expand partnerships for leadership & extracurriculars - Build stronger community engagement	- Improve caregiver-child ratio - Upgrade facilities & classrooms - Provide training & recreation programs - Introduce tech & medical facilities	- Enhance community engagement - Build on extracurricular focus - Expand character development	- Improve nutrition - Introduce medical and sports facilities - Partner for social programs - Upgrade classrooms

Threats	- High operational costs - Funding dependency	- Caregiver burnout risk - Limited funds for upgrades	- High costs may hinder scalability - Reliance on external funding	- Long-term health/emotional impact on children - Limited funding availability

Table 3 synthesized the strengths, weaknesses, opportunities, and threats across four institutional settings, revealing substantial differences in caregiver burden, facility quality, mental health support, and readiness for social prescribing interventions. An in-depth SWOT analysis was conducted; While some institutions, like Serenity Home and Courage Centre, show infrastructural strengths and manageable caregiver ratios, others such as Grey Haven and Hope House face significant challenges including high caregiver burden, poor hygiene, outdated infrastructure, and lack of medical services. These contrasts illuminate the uneven landscape of care provision. Together, these findings highlight the diverse institutional realities within Pakistan and highlights the need for tailored, context-sensitive approaches when considering the implementation of social prescribing.

The analysis of institutionalized adolescents' emotional and behavioral difficulties, measured by SDQ scores, indicated significant differences across institutions. Grey Haven reported the highest total difficulties, followed closely by Hope House. Gender differences revealed that females had lower total difficulties scores than males. These findings highlight the urgent need for holistic, person-centered interventions to support children's well-being.

Caregiver wellness was also examined across institutions. Results indicated notable health challenges, with over 50% of caregivers reporting recent sickness and gaps in mental health knowledge and training. Caregivers at Grey Haven, where caregiver burden was highest, reported more physical health issues.

As part of the study, focus group discussions were held with 33 caregivers across the four institutions to explore their perspectives on children's emotional needs and their awareness of social prescribing. In this study, "caregivers" reffered to the institutional staff directly responsible for children's daily care, including supervision, emotional support, access to food, education, and health services. Social prescribing is a non-clinical approach that connects individuals to personalized support through community-based resources and activities, with the

aim of improving health and well-being. Caregivers' awareness of social prescribing whether they had previously heard of the concept and understood its relevance to institutional care and how this may be improved was the focus of the group.

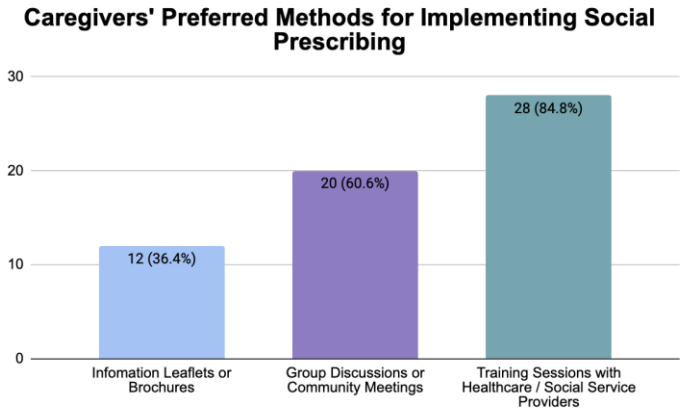
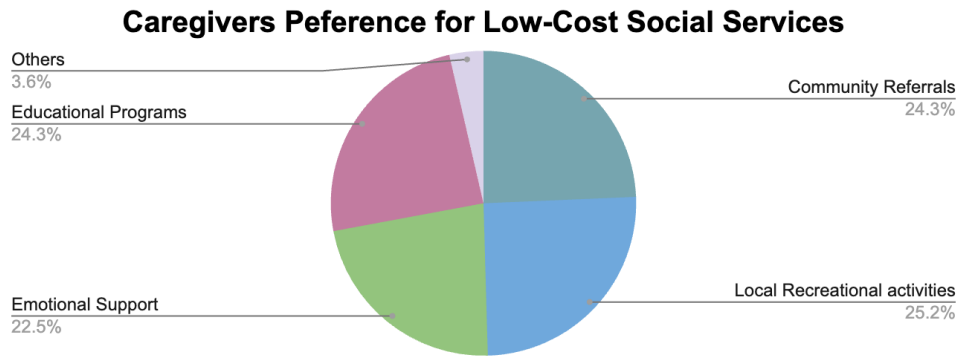


Figure 1 Caregivers' preferences for resources to improve the understanding of social prescribing

As part of the focus group discussions, caregivers were asked about the types of resources they would find most useful in strengthening their understanding and use of social prescribing in their daily work with children.

The bar chart in figure 1 encompasses caregivers' preferences for resources to improve their understanding and use of social prescribing for children. Among 33 caregivers, training sessions with healthcare or social service providers were the most favored option, with 84.8% (28 caregivers) choosing it, indicating a strong preference for structured and professional guidance. Group discussions or community meetings were the second most popular, showing a value for interactive, community-based support. Findings reflect moderate interest in written materials for learning. Overall, the caregivers prefer hands-on, interactive training to improve their understanding of social prescribing.

Figure 2: Focus Group Discussion Findings for Low-cost / Free Activities or Services



Given the cost and resource constraints that often limit the implementation of social prescribing in institutional settings, caregivers were asked during the focus group discussions to identify the types of free or low-cost activities they believed would be most beneficial for children.

Figure 2 presented preferences for free or low-cost activities for social prescribing among caregivers. To address the well-being of children under their care, the majority of caregivers preferred recreational activities, such as sports, art, and cultural programs, since they give children fun ways to interact with others and keep them active. Community referrals, such as social services and health clinics and emotional support via counseling and mentorship was recommended alongside. Overall, the results highlight the importance of adopting an integrated approach to implement social prescribing within institutions.

In addition to exploring social prescribing, the focus groups also addressed broader caregiving practices within the institutions. One key area was the use of corporal punishment, which remains a culturally sensitive and debated issue in many low-resource settings. Understanding caregivers' attitudes toward physical discipline is important, as it directly affects children's emotional well-being; although most caregivers were in total rejection of physical punishment in home and school settings, the results demonstrate a wide range of opinions regarding physical punishment, underscoring the necessity of educational initiatives to deter such behaviors. About 33.33% of caregivers supported hitting, indicating that acceptance rose in school environments.

DISCUSSION

To better understand the institutional context in which children are placed, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was conducted across the four participating institutions. This approach provided a structured way to identify environmental factors that

either support or hinder children's emotional and psychological well-being, as well as the capacity of caregivers to meet their needs.

The SWOT analysis of institutional care settings highlights a nuanced picture of their capacity to support the emotional and psychological well-being of vulnerable children. While some institutions demonstrate strengths through committed staff and the integration of community-based, recreational activities that foster resilience and positive development, others suffer from rigid structures, poor caregiver-to-child ratios, and a lack of psychosocial support, all of which contribute to emotional and behavioral challenges in children. There is a clear opportunity to enhance care through trauma-informed practices and caregiver training. However, these improvements are threatened by chronic underfunding, caregiver burnout, and limited access to mental health services.

According to this study, institutionalized children in Grey Haven and Hope House report higher rates of emotional and behavioral disorders. This implies that children's well-being is significantly influenced by the standard of care they get within the institution. For example, Hope House, situated in a remote location, has limited access to balanced meals, medical facilities, proper hygiene, and recreational activities while Grey Haven functions in a boarding school format with a rigid hierarchy, schedule, few extracurricular activities, and inadequate sports equipment. On the contrary, Courage Center and Serenity Home provide a more supportive environment with features such as well-balanced nutrition, well-trained caregivers, play areas for children to socialize, and access to quality education and extracurricular activities. Serenity Home maintained a better caregiver-to-child ratio, enabling more attentive care and opportunities for social outings.

Ecological Systems Theory conceptualized as concentric circles with the individual at the center, emphasizes the interplay between biological factors and interconnected social systems—microsystem, mesosystem, exosystem, macrosystem, and chronosystem[10]. This comprehensive view suggested that overlapping social influences must be considered to effectively support adolescent and caregiver well-being in institutional settings.

In addition, the data brought to attention the differences based on age and gender. Older adolescents (16+) and males scored higher on the total difficulties scale of the SDQ questionnaire. This study found age as a significant predictor of mental health (coefficient = 1.89, $p < 0.01$) thereby emphasizing the need for age-centric interventions. This is in line with existing research that suggests that as adolescents transition to adulthood, face mental health challenges due to financial constraints[11]. Socioeconomic factors like household income and inequality could potentially add additional burdens on adolescents, leading to age-dependent differences in mental health outcomes.

Caregivers are central to children's emotional development, yet their own health and well-being emerged as a critical concern in this study. Caregiver's well-being was assessed and 51.52% of caregivers reported experiencing recent illness. According to a cohort study conducted on caregiver burden and well-being of informal caregivers to patients in ICU, it was found that a higher caregiver burden led to poor mental health outcomes[10]. Prior research links caregiver burden with poor mental health outcomes, and similar risks appear evident in institutional settings[12].

Grey Haven Institute hosts the highest number of residents, and approximately 7 caregivers are responsible for the care of 25 institutionalized children, yet it reports the lowest rates of mental health problems. This finding deviates from current literature and warrants further investigation, as it may lead to the underreporting of health problems due to fear, stigma, and limited awareness of mental health and personal well-being. On the other hand, the majority of Serenity Home's well-trained caregivers stated that they had recently experienced mental health problems. This emphasizes the necessity of the required interventions.

This study also explored caregivers' awareness of social prescribing and their views on its implementation in institutional care. According to our study, focus group discussions discovered that the majority of caregivers understood and approved of the idea of social prescribing. It highlighted the lack of group discussions and training sessions with healthcare or social service providers. Information gaps might be filled and caregiver support and training could be strengthened, resulting in a more widespread acceptance of social prescribing and positive effects on mental health. This study highlighted that the majority of caregivers preferred "community referrals and local recreational activities" for the implementation of social prescribing. These findings demonstrated the great demand for community engagement in social prescribing programs.

Being in nature can help people develop biological, psychological, and social adaptive resources, which can help them manage stress and bounce back from setbacks, according to the nature-based biopsychosocial resilience theory (NBRT)[13]. Providing individualized interventions, leisure activities, and community participation can significantly improve adolescents' mental health outcomes and support their growth. In order to address the complex needs of institutionalized children and their caretakers, this all-encompassing approach promotes social prescribing models that integrate community-oriented and nature-based techniques.

Finally, the study examined attitudes toward corporal punishment, recognizing its role in shaping caregiving practices and child well-being. Significant variations were found in this study in caregiver views toward physical punishment. The greater tolerance for physical punishment

at Courage Center might be a sign of more stringent disciplinary practices used in high-stress settings. However, Hope House caretakers prioritize non-violent discipline, indicating a more progressive attitude. This discrepancy emphasizes how important institutional training and policies are in influencing caregiver behaviors.

Research suggests the need for community-based supportive care in institutions. Recommendations for improvements include policies mandating standards and training programs for caregivers and the establishment of better caregiver-to-child ratios to ensure personalized care[14]. These recommendations support the observation that institutions with better caregiving quality, such as those observed in Courage Center and Serenity Home which provide well-trained staff, enriching activities, and quality nutrition, can foster better emotional health outcomes. The findings stress the importance of fostering autonomy, stable routines, and emotionally responsive care to promote psychological well-being. Pakistan's government should set clear rules for caregiver-to-child ratios, require training hours, and carry out regular quality checks. These standards should be part of national child protection laws and match the *UN Guidelines for the Alternative Care of Children.*

The caregiving environment plays a pivotal role in shaping mental health outcomes for children. Institutions need to invest in psychosocial initiatives and offer regular training for caregivers to effectively respond to trauma-related behaviors. Maintaining a manageable caregiver-to-child ratio is also imperative. Supporting caregivers emotionally and professionally equips them to create nurturing environments, which, in turn, can reduce negative externalized behaviors often rooted in unresolved trauma. Training programs should also emphasize non-violent disciplinary approaches, replacing corporal punishment with positive behavior support strategies, and equipping caregivers with practical tools to manage challenging behaviors constructively. Building institutional infrastructure that enables such support is a key area for policy focus.

Beyond policy, practical measures are essential to strengthen children's psychosocial care. There is growing potential for integrating social prescribing into institutional care. However, this requires investment in awareness campaigns and caregiver training to ensure effective adoption. A knowledge gap can be filled by additional training and educational programs. More interactive and structured learning would help encourage the adoption of social prescribing within institutions. In practice, institutions could strengthen children's psychosocial care by broadening their access to community resources. For example, partnerships with local schools could allow institutionalized children to participate in mainstream classes, sports, and cultural events. This helps in promoting both inclusion and social development. Similarly, collaborations with universities, NGOs, and community centers could expand access to facilities such as playing fields, libraries, and recreational spaces. Organized retreats, sponsored outings, and

participation in local initiatives would provide opportunities for leadership development, peer bonding, and resilience-building.

A promising model for implementing social prescribing in institutional settings is the link worker approach, adapted from the UK. Link workers are trained staff who assess individual needs through structured conversations and connect participants to appropriate community-based and nature-oriented activities. Adapting this model to the Pakistani context, potentially enhanced with digital tools or needs assessments, could provide caregivers with more systematic insights into children's psychological states and tailor interventions accordingly. For instance, digital tools could help track behavioral patterns, stress levels, and social engagement over time, ensuring that interventions remain responsive and evidence-based.

Green social prescribing, as implemented in the UK's NHS and the national Green Social Prescribing Programme, provides strong evidence that connecting people to nature-based activities such as walking schemes, community gardening, conservation volunteering, open-water swimming, and outdoor arts and cultural activities improves mental health, reduces social isolation, and strengthens resilience[15]. These activities are typically prescribed by trained link workers, who assess individual needs through structured conversations and connect participants to appropriate resources. By combining community partnerships with structured assessment systems, institutions can move beyond basic care provision to create environments that actively nurture resilience, autonomy, and long-term well-being in both children and their caregiver.

Policymakers should prioritize pilot programs that explore the use of social prescribing in institutional settings, backed by funding and access to community networks. Enhancing partnerships with local organizations, NGO's, and facilitating community engagement opportunities can serve as a strong foundation for improved care. Given the resource constraints often faced by institutions such as Hope House, the research highlights that many of these recommendations can be implemented cost-effectively. Connecting children with non-clinical community resources and recreational activities can also enhance understanding of their emotional needs and mitigate some of the psychological challenges. Social prescribing must be modified to be contextually appropriate and culturally responsive in a variety of institutional contexts to be as effective as possible.

Limitations

This study acknowledges its limitations, which further influence the generality of its findings. In particular, the study's emphasis on institutionalized children in Punjab, Pakistan, calls into question whether it could be applied to other countries with distinct socioeconomic and

cultural settings. Second, the accuracy of the responses may be affected by biases such as social desirability bias and recall bias, which are brought in by the study's dependence on self-reported data from both children and caregivers. Third, the missing data analyzed through mean imputation in STATA—might contribute to bias. Fourth, the study's cross-sectional design makes it harder to determine which factors influence others or causation, making it more challenging to understand the long-term effects of emotional therapies. Lastly, even though the study's sample size was determined to be representative of the intended audience, questions concerning the findings' statistical reliability and generalization continue to exist due to their small size.

Future Research

Future research should focus on a few important areas to improve the comprehension and use of social prescribing for children in institutions, further building on this study. To evaluate the durability and efficacy of social prescribing, longitudinal studies are essential for examining the long-term effects of social prescribing on adolescents' mental health and well-being. The relative advantages of social prescribing in various contexts may be further clarified by comparative studies between children in community-based care settings and those in institutions. Examining care-education initiatives that incorporate social prescribing concepts would improve children's emotional support and improve caregiving overall caregiving experience.

CONCLUSION

The findings of this study highlight the emotional and behavioral difficulties of institutionalized children and the well-being of their caregivers. They underscore the importance of supportive caregiving environments, adequate caregiver-to-child ratios, and access to psychosocial and community-based resources in promoting positive outcomes. These insights contribute to a better understanding of institutional care dynamics, particularly in resource-limited settings, and point to areas where further research and intervention development may be beneficial.

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