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Perceived Discrimination amongAustralian Parents of Children with Cancer: Insights from the Everyday Discrimination Scale

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Abstract

Childhood cancer imposes substantial emotional, social, and logistical demands on parents, who must navigate complex health systems while supporting their child's treatment and well-being. Experiences of discrimination within healthcare can erode trust, heighten psychological distress, and compromise family functioning. This study examined perceived discrimination among Australian parents of children diagnosed with cancer, using four items from the validated Everyday Discrimination Scale to capture experiences of being treated unfairly, feeling disapproved, perceiving inequality, and feeling denied opportunities. Ninety-four parents participated in a cross-sectional survey. Sociodemographic variables included parent country of birth, education, occupation, employment status, household income, and region of residence. Multiple linear regression revealed that parents born outside Australia (B = 0.525, p = .010) and those with lower household income (B = 0.524, p = .013) reported significantly greater discrimination scores. Education, occupation, employment, and region were not significant predictors. The findings indicate that both cultural background and socioeconomic position shape parental perceptions of discrimination in childhood cancer care. Reducing communication barriers, ensuring culturally responsive care, and providing equitable service access may mitigate these experiences and enhance family wellbeing during treatment.

Introduction

Childhood cancer

Caring for a child with cancer represents one of the most demanding experiences a parent can face, requiring sustained emotional, psychological, and practical adaptation. Parents must coordinate appointments, communicate with multidisciplinary medical teams, and maintain family functioning under conditions of uncertainty and fear [1, 2]. Despite Australia's high childhood cancer survival rates, the psychosocial costs for parents remain substantial, with elevated prevalences of anxiety, depression, and chronic stress reported during and after treatment [3]. Beyond the clinical challenges of treatment, parent interactions with healthcare systems—specifically how individuals are spoken to and included in decision-making—profoundly shape trust and wellbeing[4, 5].

Childhood cancer profoundly affects the broader family unit, with parents bearing significant emotional, psychological, social, and financial burdens throughout the disease trajectory [6, 7]. Although childhood cancer is relatively rare compared with adult cancers, it remains the leading cause of disease-related death among children[8]. Each year, approximately 750 children aged 0–14 are diagnosed with cancer; leukaemia, brain tumour, and lymphoma are the most common forms [8]. Advances in medical treatment have substantially improved survival rates over recent decades, with five-year survival rates now exceeding 85% for many childhood cancer types [9]. However, survival statistics alone do not capture the complex and sustained challenges that families face. Treatment often involves prolonged hospitalisations, intensive therapies, uncertainty regarding outcomes, and long-term follow-up care [10, 11]. Parent experiences are shaped not only by clinical factors but also may be shaped by perceived discrimination from broader social and cultural determinants of health.

Parents play a central and enduring role throughout the cancer journey. Parent involvement in care of a child with cancer frequently results in parents experiencing high levels of psychological distress, including anxiety, depression, anticipatory grief, and feelings of helplessness [12]. The emotional burden is compounded by structural and systemic challenges within healthcare settings. How parents are treated by healthcare professionals; whether they feel respected, understood, and supported; and whether they receive equitable care can profoundly influence their ability to cope with, trust in the health system, and care, and their ability to advocate for their child [13]. These experiences are shaped not only by clinical factors but also by broader social and cultural determinants of health. Discrimination in healthcare settings has gained increasing recognition as a key driver of health inequities. Discrimination may manifest in overt or subtle ways, including being spoken to disrespectfully, being dismissed or ignored, being judged on the basis of cultural or social background, or perceiving inequitable access to services [14]. The Everyday Discrimination Scale (EDS) conceptualises discrimination as multidimensional, capturing experiences of being treated unfairly, feeling disapproval or judgment from others, perceiving inequality in treatment or opportunities, and feeling that opportunities have been denied owing to identity or social circumstances [15]. Studies that have used the Everyday Discrimination Scale show that experiences of routine unfair treatment are relatively common and are associated with poorer mental and physical health. Higher levels of reported discrimination are also linked to lower trust in healthcare providers, reduced engagement with health services, and delayed help-seeking, particularly among socially disadvantaged and minority populations [16]. These experiences are not simply interpersonal; they are shaped by structural conditions and power imbalances embedded in health and social institutions [17]. For parents navigating a child's serious illness, discrimination can significantly erode psychological resilience, diminish trust in providers, burden decision-making processes, and increase emotional exhaustion [17].

Australia's population is culturally diverse, with nearly 30% of residents born overseas and many families speaking languages other than English at home [18]. Research has consistently demonstrated that culturally and linguistically diverse (CALD) populations face distinct barriers in accessing and navigating healthcare, including the limited availability of interpreters, differing health literacy levels, culturally shaped understandings of illness, and communication challenges with clinicians [19]. A language barrier can constitute discrimination when patients are not provided with appropriate interpretation or translated information, resulting in poorer communication, reduced understanding of care, and unequal access to healthcare services. Migrant parents, especially those with recent arrivals, may also lack familiarity with Australian medical systems and expectations regarding self-advocacy or shared decision-making. These factors can heighten vulnerability to feelings of being dismissed, misunderstood, or excluded during medical encounters [20]. Therefore, in the context of childhood cancer care, parents' country of birth is an important social determinant that may shape interactions with healthcare providers and perceived discrimination.

Socioeconomic status also plays a critical role in shaping families' cancer experiences. Childhood cancer treatment often leads to substantial disruptions in employment, household income, the stability of daily routines, and financial security [21, 22]. Many families face out-of-pocket expenses for travel, accommodation, medications, specialist consultations, and supportive therapies [23, 24]. Low socioeconomic status may contribute to discrimination in childhood cancer care when families face barriers such as assumptions about health literacy, limited resources, or reduced support navigating the healthcare

system, which can affect timely diagnosis, communication, and access to care. Parents with lower income or limited financial reserves are therefore more likely to experience heightened stress, reduced access to psychosocial support, and diminished capacity to manage the practical demands of treatment [12, 25]. Financial strain can also amplify perceptions of inequality, particularly when families observe differences in access to resources or support among families from different socioeconomic backgrounds. Thus, income level is another key determinant that may contribute to differences in perceived discrimination among parents navigating childhood cancer care [25].

Despite the recognition of these issues, research on discrimination in the context of childhood cancer caregiving remains limited, particularly in Australia. Studies have tended to focus on clinical outcomes, patient quality of life, and the psychological burden among parents, with less attention given to how parents' experiences are shaped by the social environment and healthcare interactions [26, 27]. The experiences of CALD and lower-income families are particularly underexplored in the context of childhood cancer, notwithstanding evidence from broader health system research indicating heightened discrimination among these groups [28]. Perceived negativity or lack of trust toward healthcare professionals can arise when patients feel dismissed, judged, or treated unfairly during healthcare interactions. Such experiences may reflect perceived discrimination, which can undermine trust, reduce communication, and discourage patients from seeking care or fully engaging with treatment. Understanding discrimination in childhood cancer care is essential because paediatric oncology involves intensive and repeated contact with diverse healthcare professionals over prolonged periods. These interactions form the emotional and relational foundation of care, meaning that negative, inequitable, or dismissive experiences may have lasting consequences for parents' trust and engagement [29, 30].

Furthermore, discrimination does not occur in isolation; it is shaped by the intersection of multiple social identities, a concept central to the model of intersectionality [31]. A parent may experience discrimination not simply because they are from a non-English speaking background or because they are financially disadvantaged, but also because these identities overlap to produce compounded vulnerabilities. Intersectionality therefore provides an important framework for understanding how social and structural factors influence parental experiences within the healthcare system and why certain groups are more likely to experience discrimination than others [32].

Given the profound demands placed on parents of children with cancer, it is essential to examine how discrimination manifests in their care experiences and how these experiences vary according to social and structural factors. The present study addresses this knowledge gap by investigating perceived discrimination across four domains—treated unfairly, felt disapproval, felt inequality, and denied opportunities—among parents of children with cancer in Australia. Additionally, the study analyses how these perceptions vary across sociodemographic characteristics, including parents' country of birth, education, occupation, employment status, income, and region of residence. By so doing, this research contributes new insights into healthcare equity, family wellbeing, and the importance of culturally responsive, socially sensitive care in paediatric oncology.

Discrimination in healthcare, whether overt or subtle, has been recognised as a major contributor to health inequities. It can manifest as disrespectful communication, dismissal of concerns, stereotyping, or

inequitable access to services. The Everyday Discrimination Scale (EDS) conceptualises discrimination as a set of recurrent experiences of unfair treatment and judgment that, over time, erode psychological resilience [15]. Research shows that perceived discrimination adversely affects both mental and physical health through heightened stress responses, diminished self-efficacy, and avoidance of care seeking [33]. In the context of paediatric oncology, these experiences may amplify parental distress and interfere with parents' ability to advocate for their child.

As many families speak a language other than English at home, Australia's multicultural population adds an additional dimension to understanding discrimination in care. Parents from culturally and linguistically diverse (CALD) backgrounds may experience communication difficulties, limited familiarity with healthcare systems, and mismatched expectations regarding shared decision-making [19]. cultural and language barriers increase vulnerability to misunderstanding, exclusion, or subtle bias in interactions with clinicians [34]. Moreover, socioeconomic disadvantage—through reduced income stability, employment disruption, and increased out-of-pocket costs—can exacerbate feelings of inequity and stress. Together, cultural and socioeconomic factors intersect to influence how parents perceive fairness, empathy, and inclusion during their child's care [21]. Indeed, a recent study investigated the role of perceived discrimination in the experiences of parents of children with cancer [35]. Importantly, it was found that the emotional intensity of paediatric oncology may magnify the impact of dismissive or inequitable treatment, yet this phenomenon remains underexplored in Australian contexts. This study addresses this gap by examining how parents' sociodemographic characteristics predict perceptions of discrimination across four domains of the EDS, thereby contributing to a more nuanced understanding of equity and inclusion in paediatric cancer care.

Method

Design and Participants

A cross-sectional survey design was employed. Parents of children aged 0–14 years who were diagnosed with cancer between 2014 and 2024 were eligible for participation if they were aged 18 years or older, lived in Australia, and could complete the survey in English. Recruitment occurred via two Australian cancer support organisations—Redkite and Childhood Cancer—as well as through Australian global data and insights organisation—PureProfile. Invitation to participate in the study was distributed by the organisations through their mailing lists, websites and social media outlets. The eligibility criteria and the child's diagnosis were self-reported. Data were collected between January and September 2025. A total of 94 parents provided complete responses.

Measures

Perceived discrimination was measured via four items adapted from the Everyday Discrimination Scale [15] The nine items of the Everyday Discrimination Scale were condensed into four domains to group conceptually similar experiences of unfair treatment, enabling clearer interpretation of patterns of discrimination while maintaining the scale's ability to capture routine interpersonal discrimination. The tool aims to measure Perceived discrimination - experiences of unfair or unequal treatment believed to be

related to personal or social characteristics such as ethnicity, socioeconomic status, or language – not service dissatisfaction (negative perceptions of healthcare quality). The items reflected the felt experiences of being treated unfairly, disapproval, inequality, and the denial of opportunities. The wording was modified to elicit the parents' perception of discrimination during their interaction experiences when accessing care for their child with cancer. Responses were rated from 0 (never) to 3 (often) and averaged to form an overall score; higher scores indicate greater perceived discrimination. Cronbach's alpha for the four-item scale was 0.79.

Sociodemographic variables included parent country of birth (Australia vs. other), education (tertiary vs. nontertiary), occupation (professional vs. manual/trade), employment status (employed vs. unemployed), annual household income (above AUD $80,000 vs. below AUD 80,000), and region (city vs. rural/regional). The use of AUD $80,000 as the income threshold is based on Australian Bureau Statistics [36]. All variables were self-reported.

Data analysis

Descriptive analyses were conducted to examine response patterns for each EDS item across sociodemographic variables. For each discrimination item, response distributions (0–3) were tabulated across all sociodemographic categories to characterise how perceived discrimination varied within subgroups. An overall discrimination score was then calculated by averaging the four EDS items.

Multiple linear regression was then used to identify predictors of overall perceived discrimination. All sociodemographic variables were entered simultaneously. The assumptions of linear regression (normality, homoscedasticity, and influential cases) were checked and met. Multicollinearity was assessed via variance inflation factors (VIF < 2); no multicollinearity was detected. Statistical significance was set at $p < .05$, and analyses were performed via IBM SPSS Statistics (version 30). Data were collected through an online Qualtrics survey conducted between January to September 2025. The survey captured child demographics (age, gender, cancer type and stage at diagnosis) and parental sociodemographic characteristics (country of birth, education, occupation, employment, income and region). Stage at diagnosis was dichotomised as localised versus advanced/metastatic due to its relevance for prognosis and treatment intensity.

Results

Participant Characteristics

Ninety-four parents provided complete data. Two-thirds were born in Australia (63.8%), approximately half reported annual household incomes above AUD $80,000 (46.8%), most were employed (85.1%), Most had received a tertiary education (67.0%) and most resided in metropolitan areas (62.4%). These characteristics were used to perform subgroup analyses.

Patterns of discrimination

Response distributions for each EDS item showed variation across sociodemographic groups. Across the full sample, the highest frequencies occurred for *I felt that I was treated unfairly; I have felt disapproval (stigmatisation)*; *felt that we were treated differently from others (inequality); and felt that we were denied opportunities*. The item-level results are summarised by demographic category before the predictors of overall discrimination are examined.

Felt that I was Treated Unfairly

The response patterns for “being treated unfairly” showed notable variation across sociodemographic groups (Table 1.1). Parents born overseas reported higher mean unfair-treatment scores (M = 1.65, SD = 0.92) than Australian-born parents (M = 1.05, SD = 1.00). The lower-income households had higher scores (M = 1.50, SD = 0.95) than the higher-income households (M = 1.00, SD = 1.01). Parents in manual/trade occupations reported slightly higher scores (M = 1.42, SD = 0.99) than those in professional/nonmanual occupations (M = 1.21, SD = 1.02). The differences in employment status and residence region were smaller, although employed parents (M = 1.31, SD = 1.00) and those living in city areas (M = 1.34, SD = 1.04) reported somewhat higher scores than their comparison groups. These differences indicate that perceptions of unfair treatment varied across multiple demographic categories, with several groups reporting relatively elevated levels of unfair treatment more likely to be experienced by those more vulnerable.

Table 1.1
Perceived unfair treatment across sociodemographic characteristics of parents of children with cancer.

Variable	Category	Never Frequency (%)	Rarely Frequency (%)	Sometimes Frequency (%)	Often Frequency (%)	Mean	SD
Country of birth	Australia	25 (26.6%)	10 (10.6%)	22 (23.4%)	3 (3.2%)	1.05	1.00
	Other	7 (7.4%)	1 (1.1%)	23 (24.5%)	3 (3.2%)	1.65	0.92
Education	Tertiary education	22 (23.4%)	8 (8.5%)	28 (29.8%)	5 (5.3%)	1.25	1.03
	No tertiary education	10 (10.6%)	3 (3.2%)	17 (18.1%)	1 (1.1%)	1.29	0.97
Occupation	Professional (nonmanual)	24 (25.5%)	11 (11.7%)	28 (29.8%)	5 (5.3%)	1.21	1.02
	Manual (trade)	8 (8.5%)	0 (0.0%)	17 (18.1%)	1 (1.1%)	1.42	0.99
Employment status	Employed	25 (26.6%)	11 (11.7%)	38 (40.4%)	6 (6.4%)	1.31	1.00
	Unemployed	7 (7.4%)	0 (0.0%)	7 (7.4%)	0 (0.0%)	1.00	1.04
Income	Above $80,000	20 (21.3%)	6 (6.4%)	16 (17.0%)	2 (2.1%)	1.00	1.01
	Below $80,000	12 (12.8%)	5 (5.3%)	29 (30.9%)	4 (4.3%)	1.50	0.95
Region	City	18 (19.4%)	8 (8.6%)	26 (28.0%)	6 (6.5%)	1.34	1.04
	Rural/Regional	14 (15.1%)	3 (3.2%)	18 (19.4%)	0 (0.0%)	1.11	0.96

I have felt disapproval (stigmatisation)

Experiences of disapproval also varied across sociodemographic groups (Table 1.2). Parents born overseas reported greater mean disapproval (M = 1.50, SD = 0.86) than Australian-born parents (M = 0.97, SD = 0.94). Similarly, lower-income households (M = 1.38, SD = 0.85) and parents in manual/trade occupations (M = 1.35, SD = 0.94) reported greater disapproval than higher-income parents (M = 0.91, SD = 0.98) and professional/nonmanual parents (M = 1.09, SD = 0.94). Parents without a tertiary education (M = 1.23, SD = 0.92) and those employed (M = 1.19, SD = 0.94) also had slightly elevated scores. Overall, disapproval was modestly higher among parents from overseas, lower-income households, and less advantaged occupational or educational groups.

Table 1.2
Perceived disapproval in accessing care across the sociodemographic characteristics of parents of children with cancer.

Variable	Category	Never Frequency (%)	Rarely Frequency (%)	Sometimes Frequency (%)	Often Frequency (%)	Mean	SD
Country of birth	Australia	24 (25.5%)	17 (18.1%)	16 (17.0%)	3 (3.2%)	0.97	0.94
	Other	7 (7.4%)	4 (4.3%)	22 (23.4%)	1 (1.1%)	1.50	0.86
Education	Tertiary education	21 (22.3%)	17 (18.1%)	21 (22.3%)	4 (4.3%)	1.13	0.96
	No tertiary education	10 (10.6%)	4 (4.3%)	17 (18.1%)	0 (0.0%)	1.23	0.92
Occupation	Professional (nonmanual)	23 (24.5%)	20 (21.3%)	21 (22.3%)	4 (4.3%)	1.09	0.94
	Manual (trade)	8 (8.5%)	1 (1.1%)	17 (18.1%)	0 (0.0%)	1.35	0.94
Employment status	Employed	25 (26.6%)	19 (20.2%)	32 (34.0%)	4 (4.3%)	1.19	0.94
	Unemployed	6 (6.4%)	2 (2.1%)	6 (6.4%)	0 (0.0%)	1.00	0.96
Income	Above $80,000	20 (21.3%)	11 (11.7%)	10 (10.6%)	3 (3.2%)	0.91	0.98
	Below $80,000	11 (11.7%)	10 (10.6%)	28 (29.8%)	1 (1.1%)	1.38	0.85
Region	City	18 (19.4%)	17 (18.3%)	19 (20.4%)	4 (4.3%)	1.16	0.95
	Rural/Regional	13 (14.0%)	4 (4.3%)	18 (19.4%)	0 (0.0%)	1.14	0.94

Felt That We Were Treated Differently To Others (Inequality *)*

Table 1.3 presents perceived inequality during access to care across sociodemographic groups. Parents born overseas reported higher mean inequality scores (M = 1.56, SD = 0.96) than Australian-born parents (M = 0.85, SD = 0.94). Compared with higher-income (M = 0.75, SD = 0.94) and professional/nonmanual parents (M = 1.00, SD = 1.0), lower-income households (M = 1.42, SD = 0.95) and manual/trade workers (M = 1.38, SD = 0.94) reported greater perceived inequality. Parents without tertiary education (M = 1.32, SD = 0.87) reported greater perceived inequality than tertiary-educated parents (M = 1.00, SD = 1.05). Metropolitan parents reported marginally higher scores (M = 1.14, SD = 1.00) than those in rural/regional areas (M = 1.03, SD = 1.01). Overall, perceived inequality was elevated among parents born overseas, lower-income households, less-educated parents, and those in manual/trade occupations.

Table 1.3
Perceived inequality in accessing care across the sociodemographic characteristics of parents of children with cancer.

Variable	Category	Never Frequency (%)	Rarely Frequency (%)	Sometimes Frequency (%)	Often Frequency (%)	Mean	SD
Country of birth	Australia	30 (31.9%)	10 (10.6%)	19 (20.2%)	1 (1.1%)	0.85	0.94
	Other	8 (8.5%)	2 (2.1%)	21 (22.3%)	3 (3.2%)	1.56	0.96
Education	Tertiary education	30 (31.9%)	7 (7.4%)	22 (23.4%)	4 (4.3%)	1.00	1.05
	No tertiary education	8 (8.5%)	5 (5.3%)	18 (19.1%)	0 (0.0%)	1.32	0.87
Occupation	Professional (nonmanual)	30 (31.9%)	12 (12.8%)	22 (23.4%)	4 (4.3%)	1.00	1.01
	Manual (trade)	8 (8.5%)	0 (0.0%)	18 (19.1%)	0 (0.0%)	1.38	0.94
Employment status	Employed	32 (34.0%)	11 (11.7%)	34 (36.2%)	3 (3.2%)	1.10	0.99
	Unemployed	6 (6.4%)	1 (1.1%)	6 (6.4%)	1 (1.1%)	1.14	1.10
Income	Above $80,000	25 (26.6%)	6 (6.4%)	12 (12.8%)	1 (1.1%)	0.75	0.94
	Below $80,000	13 (13.8%)	6 (6.4%)	28 (29.8%)	3 (3.2%)	1.42	0.95
Region	City	22 (23.7%)	9 (9.7%)	24 (25.8%)	3 (3.2%)	1.14	1.00
	Rural/Regional	16 (17.2%)	3 (3.2%)	15 (16.1%)	1 (1.1%)	1.03	1.01

Felt That We Were Denied Opportunities

Perceived denial of opportunities varied across sociodemographic groups (Table 1.4). Parents born overseas reported higher mean scores (M = 1.65, SD = 0.88) than Australian-born parents (M = 0.93, SD = 1.04). Compared with higher-income households (M = 0.93, SD = 1.97), parents working in manual/trade occupations (M = 1.35, SD = 1.02) reported greater perceived denial (M = 0.93, SD = 1.07), and parents working in professional/nonmanual occupations reported greater perceived denial (M = 1.13, SD = 1.05). Education showed minimal variation, with parents with and without tertiary qualifications reporting similar mean scores (M = 1.19). Metropolitan and rural/regional differences were also evident (M = 1.17 vs. 1.20), skewing again towards elevated scores in parents in metropolitan areas. Overall, elevated perceptions of denied opportunities were most pronounced among parents born overseas and those in lower-income or manual/trade occupational groups.

Table 1.4
Perceived denial of opportunities in accessing care across sociodemographic characteristics of parents of children with cancer.

Variable	Category	Never Frequency (%)	Rarely Frequency (%)	Sometimes Frequency (%)	Often Frequency (%)	Mean	SD
Country of birth	Australia	29 (30.9%)	11 (11.7%)	15 (16.0%)	5 (5.3%)	0.93	1.04
	Other	6 (6.4%)	3 (3.2%)	22 (23.4%)	3 (3.2%)	1.65	0.88
Education	Tertiary education	25 (26.6%)	8 (8.5%)	23 (24.5%)	7 (7.4%)	1.19	1.09
	No tertiary education	10 (10.6%)	6 (6.4%)	14 (14.9%)	1 (1.1%)	1.19	0.95
Occupation	Professional (nonmanual)	26 (27.7%)	14 (14.9%)	21 (22.3%)	7 (7.4%)	1.13	1.05
	Manual (trade)	9 (9.6%)	0 (0.0%)	16 (17.0%)	1 (1.1%)	1.35	1.02
Employment status	Employed	29 (30.9%)	13 (13.8%)	32 (34.0%)	6 (6.4%)	1.19	1.02
	Unemployed	6 (6.4%)	1 (1.1%)	5 (5.3%)	2 (2.1%)	1.21	1.19
Income	Above $80,000	21 (22.3%)	10 (10.6%)	8 (8.5%)	5 (5.3%)	0.93	1.07
	Below $80,000	14 (14.9%)	4 (4.3%)	29 (30.9%)	3 (3.2%)	1.42	0.97
Region	City	22 (23.7%)	9 (9.7%)	22 (23.7%)	5 (5.4%)	1.17	1.05
	Rural/Regional	13 (14.0%)	5 (5.4%)	14 (15.1%)	3 (3.2%)	1.20	1.05

Multiple linear regression was used to examine sociodemographic predictors of overall perceived discrimination. The independent variables included parents' country of birth, education, occupation, employment status, income, and region of residence. The model was statistically significant, F (6.86) = 3.02, p = .010, and explained 17.4% of the variance in the discrimination scores (R^2 = .174).

Two variables significantly predict discrimination. Parents born overseas reported higher discrimination scores than Australian-born parents (B = 0.525, 95% CI [0.126, 0.924], p = 0.010). Unexpectedly, higher household income also predicted greater perceived discrimination (B = 0.524, 95% CI [0.112, 0.936], p = 0.013). Education, occupation, employment status, and region were not statistically significant. See Table 1.5 for the coefficients.

Table 1.5
Coefficient table for the multiple regression model used to determine perceived discrimination.

Variable	B	Std. Error	Beta	T	Sig.	95% CI	VIF
Country of birth: Other (ref: Australia)	0.525	0.201	0.275	2.617	0.010	[0.126, 0.924]	1.153
Education: No-tertiary education (ref: Tertiary education)	-0.066	0.210	-0.034	-0.316	0.753	[-0.483, 0.351]	1.202
Occupation: Manual/trade (ref: Professional)	-0.098	0.228	-0.048	-0.431	0.667	[-0.552, 0.355]	1.280
Employment status: Unemployed (ref: Employed)	-0.199	0.273	-0.078	-0.730	0.467	[-0.741, 0.343]	1.188
Income: Below $80,000 (ref: above $80,000)	0.524	0.207	0.286	2.530	0.013	[0.112, 0.936]	1.334
Region: Rural/Regional (ref: City)	-0.017	0.194	-0.009	-0.087	0.931	[-0.403, 0.369]	1.107

Note: B, Unstandardized coefficients; Beta, Standardized coefficients.

The results of the item-level analyses mirrored these patterns: parents born outside Australia consistently reported higher scores across all four discrimination domains. For example, they were twice as likely to report ‘sometimes’ or ‘often’ feeling unfair treatment than Australian-born parents. here is an association between income and discrimination, lower-income participants described greater experiences of inequality and denied opportunities. The positive association between lower income and discrimination may reflect heightened awareness of service inequities or greater expectations regarding care quality. The positive association between lower income and discrimination may reflect service inequities or greater expectations regarding care quality. Other socioeconomic variables did not reach statistical significance.

Discussion

This study provides one of the first empirical examinations of perceived discrimination among parents of children with cancer in Australia. While parent education, occupation, employment status and region of residence trended in the expected direction, their effects were not statistically significant. The use of items from the Everyday Discrimination Scale revealed significant associations between discrimination and two key sociodemographic factors: parental country of birth and household income. The results demonstrate that, even within a universal healthcare system, subtle inequities and differential experiences persist in paediatric oncology.

The elevated discrimination scores among parents born overseas align with international findings that culturally and linguistically diverse (CALD) families frequently face both structural and interpersonal barriers in healthcare communication [37]. These challenges extend beyond language proficiency to include differing explanatory models of illness, expectations around authority and deference in clinician–parent relationships, and cultural norms regarding emotional expression and advocacy [38]. When parents perceive

that their cultural background or accent elicits impatience, stereotyping, or reduced empathy, the cumulative effect can be experienced as subtle discrimination, even when not overtly intended by clinicians [39].

Limited access to qualified medical interpreters and the use of ad hoc or family-based translation can further exacerbate misunderstandings, leading to confusion about diagnosis, treatment side effects, or consent processes [40]. For migrant parents, uncertainty about rights within the healthcare system and fear of being perceived as 'difficult' may suppress help-seeking or questioning behaviours, reinforcing asymmetrical communication dynamics. These findings suggest that cultural differences between healthcare providers and families can predict lower levels of satisfaction, increased anxiety, and poorer adherence to treatment regimens [41, 42].

Within paediatric oncology—where communication accuracy and emotional containment are critical—these barriers can intensify distress and erode trust. In addition to individual clinician training, broader institutional commitments to cultural safety are needed. This includes embedding interpreters and cultural liaison officers within oncology teams, providing continuity of care for CALD families, and integrating codesigned educational resources that normalise diverse explanatory frameworks of illness [43]. Enhancing relational competence and reflective practice among clinicians can help dismantle subtle hierarchies that position migrant parents as less knowledgeable or credible. Ultimately, sustained investment in culturally responsive service design—rather than reliance on individual goodwill—offers the most durable strategy for mitigating inequities in perceived discrimination and improving psychosocial outcomes.

Contrary to expectations, higher-income parents reported greater perceived discrimination in accessing and navigating their child's cancer care. At first glance, this pattern appears paradoxical, as socioeconomic advantage is typically associated with greater health literacy, resource access, and system familiarity. However, recent work has shown that perceived discrimination is not linearly distributed across income gradients but can emerge from heightened expectations of service quality, awareness of inequities, and moral sensitivity to systemic shortfalls [37]. Parents with greater financial and educational resources may possess greater awareness of what equitable, timely, and person-centred care should entail, thus perceiving inconsistencies, delays, or communication breakdowns as forms of unfairness. In this sense, perceptions of discrimination may reflect critical evaluation of care experience rather than a direct experience of marginalisation [37].

The health psychology literature suggests that privilege can heighten sensitivity to unmet expectations and bureaucratic resistance [37] and that higher-SES participants are more likely to perceive both discrimination and privilege in healthcare, indicating that awareness of system flaws may coexist with social advantage [37]. Similarly, research has highlighted how middle- and upper-income families navigating chronic illness often experience frustration when expected service efficiency or empathy is absent—an emotional response amplified by professional identity and time scarcity [37]. Thus, lower-income parents may frame institutional rigidity or unresponsiveness as discriminatory, especially when their advocacy efforts are disregarded, or procedural fairness is lacking.

Alternatively, this finding may reflect social comparison and moral distress mechanisms. As Oates et al. (2017) noted, individuals occupying more privileged social positions can internalise systemic inequities

observed in others' treatment [37]. In the context of paediatric oncology, parents who witness disparities affecting lower-income or culturally diverse families may perceive the system as unjust and experience vicarious discrimination—a form of empathetic distress that influences their own evaluation of fairness. This phenomenon underscores the relational and comparative nature of perceived inequity, which is consistent with social identity and justice sensitivity theories.

From a psychosocial standpoint, these results reveal that perceptions of discrimination arise not only from disadvantage but also from value dissonance—the gap between institutional conduct and personal expectations of ethical care. Further qualitative research should examine how health system complexity, parental advocacy roles, and professional class expectations shape this dynamic. Such inquiry may clarify whether perceived discrimination among higher-income groups reflects actual procedural inequities, amplified moral awareness, or a broader erosion of trust in institutional responsiveness.

Although education, occupation, and geographic region were not statistically significant predictors in this study, the descriptive patterns revealed modest gradients consistent with established social determinants of health. Parents without tertiary education and those employed in manual or trade occupations tended to report slightly higher levels of perceived discrimination. This trend reflects broader evidence that lower educational attainment is associated with reduced health literacy, greater difficulty interpreting medical information, and lower confidence in navigating complex healthcare systems [44]. These factors can amplify vulnerability to perceived unfairness, especially when communication from health professionals lacks clarity or empathy.

Occupational class also shapes how parents experience and interpret their interactions within healthcare institutions. Manual and trade workers often face time constraints, limited flexibility in employment, and fewer opportunities to take leave for caregiving or appointments. These practical barriers can heighten stress and reinforce perceptions that the healthcare system is unresponsive to the needs of working-class families [45]. Research on healthcare disrespect and exclusion indicates that subtle markers of social class —such as language use, appearance, or occupation—can elicit differential treatment or assumptions about competence and compliance [46]. When families sense such judgments, even implicitly, they may internalise these experiences as discrimination, compounding existing inequities.

Regional location appeared to play a smaller role in perceived discrimination, although rural and regional parents frequently report other systemic disadvantages, including longer travel distances, fewer specialised services, and reduced access to psychosocial support [47]. These structural disparities may create a background of logistical stress that influences perceptions of fairness and responsiveness. However, the absence of a significant association in this study could reflect compensatory effects of close-knit community networks or improved outreach services in some regional settings.

Taken together, these findings suggest that discrimination experiences are shaped not only by visible social hierarchies but also by the interaction between educational opportunity, occupational flexibility, and service accessibility. This reinforces a central principle of health psychology: inequity is embedded in the intersection of structural conditions and relational experiences within healthcare systems. As Link et al. (2024) argue, socioeconomic status-based disrespect operates through both institutional and interpersonal

pathways, whereby systemic norms privilege particular communication styles and expectations of deference [46]. Future studies should therefore explore how professional background, self-advocacy confidence, and regional service design interact to influence perceived discrimination in paediatric oncology.

Perceived discrimination in healthcare can exacerbate parental distress, particularly in high-stakes clinical settings. Previous research has linked such experiences to increased depressive symptoms, diminished trust, and reduced adherence to care recommendations [33, 48]. For parents of children with cancer, feeling dismissed or unfairly treated may undermine their confidence in decision-making and erode their sense of partnership with clinicians. Recognising and addressing discrimination, therefore, is integral to psychosocial care and the broader goals of family-centred oncology practice.

Implications for Practice and Policy

Addressing perceived discrimination requires systemic and interpersonal strategies. At the service level, embedding cultural safety training, expanding interpreter access, and implementing patient navigation programs can help bridge communication gaps. Health professionals should be encouraged to engage in reflexive practice—examining how unconscious bias and institutional norms may shape interactions. Policies that reduce financial toxicity, improve the transparency of support eligibility, and foster inclusive communication will strengthen equity in cancer care. Integrating patient-reported experience measures on discrimination into quality improvement frameworks could provide actionable feedback for services.

Limitations and Future Research

This study's cross-sectional design limits causal inference, and the convenience sample may not fully represent the diversity of Australian parents of children with cancer. Although the survey was sent to 1,000 parents of children with cancer, 94 parents completed the survey, which may introduce potential selection bias, as parents who chose to participate may differ from non-respondents in characteristics such as engagement with healthcare services or willingness to share their experiences. The findings should be interpreted with caution when considering generalizability. Recall bias is unlikely because the perception of discrimination is a highly salient, emotionally significant event. For a parent accessing care for the child with a serious illness, the feelings of shock, fear, or grief, experienced in a context of perceived discrimination may lead to the parent feeling angry, powerless, mistrusting or distressed. This has been demonstrated to increase the accuracy of memory [49]. Although the study included a relatively small sample, this reflects the rarity of childhood cancer, which limits the size of available study populations even in population-based research. Parents who were unable to complete the survey in English were not able to be accommodated as the survey was administered in English, therefore parents with limited English proficiency may have been less likely to participate, possibly causing a language-related selection bias and underrepresentation of culturally and linguistically diverse parents. Emotional arousal has been shown to enhance the encoding and consolidation of salient memories [50]. Recall bias is unlikely because the perception of discrimination is a highly salient, emotionally significant event. For a parent accessing care for the child with a serious illness, the feelings of shock, fear or grief, experienced in a context of perceived discrimination may lead to the parent feeling angry, powerless, mistrusting or distressed. This has been demonstrated to increase the accuracy of memory. Although the study included a relatively small sample, this reflects the rarity of

childhood cancer, which limits the size of available study populations even in population-based research. Although this study was focused on parent factors of identity (country of birth, education, occupation, employment status, income and region of residence), future studies may include clinical characteristics of the child (type of cancer, severity of disease, time of diagnosis, and stress levels of the child). The use of a validated scale and multivariate analysis strengthens confidence in the findings. Future mixed-methods research should examine qualitative narratives to unpack the emotional and relational contexts of discrimination and further explore intersectional effects involving ethnicity, gender, and socioeconomic status.

Conclusion

Discrimination, although often subtle, constitutes a meaningful dimension of the caregiving experience for parents of children with cancer. This study highlights how cultural background and socioeconomic context shape perceptions of fairness and respect within healthcare. Efforts to foster culturally responsive, empathetic, and equitable care will not only reduce perceived discrimination but also promote psychological resilience and trust among families navigating paediatric oncology.

Declarations

Ethics approval and consent to participate

Ethics approval, in accordance with the Declaration of Helsinki, was obtained (ethics reference: H16116) from Human Research Ethics Committee of Western Sydney University. The Participant Information Sheet was included at the start of the survey, clearly stating that completion implied consent.

Consent for publication

Not applicable

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Authors' contributions

KP, DS, EG, KM, and DA contributed to the conceptualization and methodology of the study. KP and DA conducted the formal analysis, and KP was responsible for data curation. The original draft of the manuscript was prepared by KP and DS, with all authors (KP, DS, EG, KM, and DA) contributing to the review and editing process. Supervision was provided by EG, DS, KM, and DA. KP managed project administration.

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Availability of data and materials

Research data generated by WSU Higher Degree Research (HDR) students is owned by the University, and requests for access to data must go through the School of Psychology Research Director.

Competing interests

The authors declare no competing interests.

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