THE INTERSECTION OF DEMOGRAPHIC FACTORS, PARENTAL AWARENESS, AND ATTITUDES: IMPLICATIONS FOR CHILDREN’S HEALTH RISKS FROM SECONDHAND TOBACCO SMOKE

a Fatma Masoud Elsaihi, b Shamarina Shohaimi, c Mohd Noor Hisham Mohd Nadzir, d Mohd Hazwan Mohd Puad, e Abdul Hafiz Ab Rahman, f Afaf Masaoud Elsaieh

ABSTRACT

Objective: This study aims to investigate the association between demographic factors, such as age, ethnicity, income, education, and occupation, with parents' perspectives and awareness of the health risks associated with secondhand smoke (SHS), considering the significance of these factors for effective health education and prevention initiatives.

Methods: Data were collected from 378 employees working in four higher education institutions in the Klang Valley region of Malaysia. A standardized questionnaire was administered to collect data on demographic characteristics, knowledge, and attitudes towards SHS. Path analysis was employed to examine the relationships between demographic characteristics and parents' knowledge of and attitudes towards the risks of SHS.

Results: The study explored how demographic factors, namely age, education, occupation, income level, and ethnicity, influenced parents' knowledge and attitudes towards the health risks of SHS. The results indicated that none of these demographic characteristics had a significant impact on parents' attitudes and knowledge. However, it was observed that parents' financial status significantly and negatively affected their understanding of the health hazards associated with children's exposure to smoking.

Conclusions: Protecting children's health and reducing the prevalence of smoking-related illnesses requires parents to enhance their knowledge and foster negative attitudes towards SHS. Developing targeted interventions that address the specific challenges parents face, particularly in relation to their financial circumstances, is crucial to promote a smoke-free environment for children.
Research Implications: The study's findings provide insights into the complex relationship between demographic factors and parents' knowledge and attitudes towards SHS. These insights can inform the design of tailored interventions that consider various demographic characteristics to communicate SHS risks and promote healthier behaviours effectively.

Originality/Value: This study contributes to the existing literature by examining the influence of demographic factors on parents' perspectives on SHS health risks. The findings underscore the importance of considering demographic characteristics when designing interventions to address SHS exposure and encourage healthier behaviours among parents and caregivers.

Keywords: secondhand smoking, knowledge, perceptions, attitudes, practice, demographic factors, and Klang Valley.

INTERSEÇÃO DE FATORES DEMOGRÁFICOS, CONSCIÊNCIA DOS PAIS E ATITUDES: IMPLICAÇÕES PARA A SAÚDE DAS CRIANÇAS DOS RISCOS DO FUMO DE CIGARRO EM SEGUNDA MÃO

RESUMO

Objetivo: Este estudo tem como objetivo investigar a associação entre fatores demográficos, como idade, etnia, renda, educação e ocupação, com as perspectivas dos pais e a consciência dos riscos à saúde associados ao fumo passivo (SHS), considerando a importância desses fatores para iniciativas eficazes de educação e prevenção em saúde.

Métodos: Foram coletados dados de 378 funcionários que trabalhavam em quatro instituições de ensino superior na região do Vale do Klang, na Malásia. Um questionário padronizado foi aplicado para coletar dados sobre características demográficas, conhecimentos e atitudes em relação à SHS. A análise do caminho foi empregada para examinar as relações entre as características demográficas e o conhecimento e atitudes dos pais em relação aos riscos da SHS.

Resultados: O estudo explorou como fatores demográficos, como idade, educação, ocupação, nível de renda e etnia, influenciaram o conhecimento e as atitudes dos pais em relação aos riscos à saúde da SHS. Os resultados apontaram que nenhuma dessas características demográficas teve impacto significativo nas atitudes e conhecimentos dos pais. No entanto, observou-se que a situação financeira dos pais afetou significativamente e negativamente a sua compreensão dos riscos para a saúde associados à exposição das crianças ao tabagismo.

Conclusões: Proteger a saúde das crianças e reduzir a prevalência de doenças relacionadas com o tabagismo requer que os pais melhorem os seus conhecimentos e promovam atitudes negativas em relação à SHS. O desenvolvimento de intervenções específicas que abordem os desafios específicos que os pais enfrentam, especialmente em relação às suas circunstâncias financeiras, é crucial para promover um ambiente sem fumo para as crianças.

Implicações da pesquisa: Os resultados do estudo fornecem uma visão sobre a complexa relação entre fatores demográficos e o conhecimento e as atitudes dos pais em relação à SHS. Esses insights podem informar o design de intervenções personalizadas que consideram várias características demográficas para comunicar os riscos da SHS e promover comportamentos mais saudáveis de forma eficaz.

Originalidade/valor: Este estudo contribui para a literatura existente ao examinar a influência de fatores demográficos nas perspectivas dos pais sobre os riscos de saúde da SHS. Os achados...
The Intersection of Demographic Factors, Parental Awareness, and Attitudes: Implications for Children's Health Risks from Secondhand Tobacco Smoke


ressaltam a importância de considerar as características demográficas ao projetar intervenções para abordar a exposição à SHS e incentivar comportamentos mais saudáveis entre pais e cuidadores.

Palavras-chave: tabagismo de segunda mão, conhecimento, percepções, atitudes, prática, fatores demográficos e Klang Valley.

1 INTRODUCTION

Secondhand smoke (SHS), or environmental tobacco smoke (ETS), poses a significant public health threat. Children exposed to SHS are at risk of various health complications, including respiratory issues, developmental delays, and an increased likelihood of sudden infant death syndrome (SIDS) (Junus et al., 2021). Moreover, exposure to SHS during childhood is associated with a higher probability of initiating smoking during adolescence and maintaining the habit into adulthood, thereby increasing the susceptibility to smoking-related diseases (Myers et al., 2020; Hawsawi, 2020). Despite the well-documented health risks linked to SHS exposure, many children worldwide continue to be exposed, primarily due to parental smoking. Research indicates that paternal knowledge, attitudes, and behaviours concerning SHS play a significant role in children's exposure to tobacco smoke (Dai et al., 2021). Parents who underestimate the health risks associated with SHS or lack awareness of its harmful effects are more likely to subject their children to tobacco fumes (Junus et al., 2021; Dai et al., 2021).

Furthermore, some parents have limited awareness and empathy for the effects of SHS exposure during pregnancy. For instance, Kakolaki et al. (2023) revealed that educational programs targeting male smokers can significantly improve knowledge, attitudes, and behaviours related to SHS exposure during pregnancy. This underscores the importance of education and awareness campaigns in reducing SHS exposure. Additionally, SHS exposure has been linked to disruptions in children's sleep patterns, highlighting the pervasive impact of SHS on various aspects of child health (Fakhreddine et al., 2019). In this context, it is crucial to investigate how demographic factors shape maternal knowledge and attitudes towards SHS. This understanding will inform targeted interventions to reduce children's exposure to SHS, protect their health, and mitigate the prevalence of smoking-related diseases in society. Therefore, this study aims to address this research gap by examining the influence of various demographic factors (age, ethnicity, income level, educational attainment, and occupation) on parents' knowledge and attitudes regarding the health risks associated with SHS.
2 THEORETICAL FRAMEWORK

The theoretical framework of this study provides a conceptual basis for understanding the complex relationships between parental smoking habits, children's health risks due to exposure to secondhand smoke, and the potential factors influencing these dynamics. The chosen framework aligns with the study's focus and objectives, guiding the research design, data collection, and analysis. This section presents the Health Belief Model as the core theoretical framework and discusses its relevance to the study.

The Health Belief Model (HBM), developed by Rosenstock, is a widely recognized and utilized theory in health behaviors research (Rosenstock, 1974). It aims to explain and predict individuals' health-related behaviours by considering their perceptions of health risks and benefits, as well as factors influencing their decision-making processes. The HBM emphasizes the role of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy in shaping health-related behaviours (Pribadi & Devy, 2020).

By integrating the Health Belief Model into the study's framework, this research aims to understand the cognitive and motivational factors that influence parents' decisions related to smoking habits and their potential impact on their children's health. The model provides a lens through which to examine the mechanisms that drive or hinder smoking cessation efforts and the implementation of protective measures against secondhand smoke exposure (Myers et al., 2020). Furthermore, the Health Belief Model's applicability extends to understanding the broader social and environmental factors contributing to parents' attitudes, beliefs, and behaviours. This includes the influence of social norms, family dynamics, cultural factors, and the role of health communication in shaping parental decisions concerning smoking and child health. The Health Belief Model serves as a robust theoretical foundation for investigating the relationship between parental smoking habits, secondhand smoke exposure, and children's health risks (Trent et al., 2021). By exploring the model's constructs within the context of the study objectives, this research endeavours to provide insights into effective strategies for promoting smoking cessation and minimizing secondhand smoke exposure among children.
3 METHODOLOGY

3.1 RESEARCH DESIGN

A quantitative descriptive research study was conducted to investigate the frequency of parental smoking and the health hazards associated with parental smoking exposure. This research aimed to gain a comprehensive understanding of how parental tobacco use impacts children's health. Descriptive research examines the distribution of risk factors and the prevalence of a disease or epidemiological process within a specific period, location, and population. This study focused on exploring personal, social, and academic factors influencing parental tobacco use.

The research followed a cross-sectional design, which involved collecting data at a specific point in time. The cross-sectional design allows for analyzing an event at a particular moment and evaluating variables within a defined time frame without any follow-up. Multiple linear regression, Chi-square, and logistic regression analyses were employed to analyze the research objectives and investigate the relationships between variables.

3.2 THE POPULATION OF THE STUDY AND SAMPLE

Table 1 displays the total number of staff members in each selected university for this study. The combined estimated staff count for Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Malaya (UM), and Sunway University is 19,524. These four universities were selected due to their larger staff sizes, which facilitated the data collection process and increased the likelihood of obtaining a higher response rate.

<table>
<thead>
<tr>
<th>University</th>
<th>Total staff</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPM</td>
<td>7,968</td>
<td>(UPM, 2021)</td>
</tr>
<tr>
<td>UKM</td>
<td>7,519</td>
<td>(UKM, 2021)</td>
</tr>
<tr>
<td>UM</td>
<td>3,468</td>
<td>(UM, 2021)</td>
</tr>
<tr>
<td>Sunway</td>
<td>569</td>
<td>(QS, 2021)</td>
</tr>
<tr>
<td></td>
<td><strong>19,524</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Prepared by the author

Based on the total population of members presented in Table 1, the optimal sample size is 457. This sample size is suggested by Krejcie and Morgan (1970).

\[ S = X^2NP \left(1 - P\right) \div d^2 \left(N - 1\right) + X^2P \left(1 - P\right) \]
Where:

\[ S = \text{required sample size.} \]

\[ X'' = \text{the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).} \]

\[ N = \text{the population size} \]

\[ P = \text{the population proportion (assumed to be .50)} \]

\[ d = \text{the degree of accuracy expressed as a proportion (.05)} \]

\[ S = X'^2 NP (1 - P)^2 (N - 1) + X'^2 P (1 - P) \]

\[ S = (3.841)^2 * 20,802 * 0.5 * (1-0.5) / (0.05)^2 (20,802-1) + (3.841)^2 * 0.5 * (1-0.5) \]

\[ S = 457 \]

3.3 QUESTIONNAIRE

A structured questionnaire was utilized to collect relevant information, with the questions designed to align with the research objectives. The questionnaire underwent validation by experts in epidemiology and medical sciences, ensuring its face and content validity. In order to accommodate the language preferences of the population, the questionnaire was initially developed in English and then translated into Bahasa Malaysia, the most widely spoken language in the country.

4 RESULTS AND DISCUSSION

4.1 RESPONSE RATE

As shown in Table 2, a total of 457 questionnaires were distributed to the respondents. Out of these, 79 questionnaires were not returned, resulting in 378 usable questionnaires. This represents a response rate of 82.71%, which is considered acceptable.

<table>
<thead>
<tr>
<th>Total questionnaire distributed</th>
<th>457</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not returned / unqualified questionnaire</td>
<td>79</td>
</tr>
<tr>
<td>Useable questionnaire</td>
<td>378</td>
</tr>
<tr>
<td>Response rate</td>
<td>82.71%</td>
</tr>
</tbody>
</table>

Source: Prepared by the author

4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

Figures 1-5 present the findings regarding the demographic factors analyzed in the study. The age category was divided into four groups: 28-35 years old, 36-43 years old, 44-51 years old, and 52-60 years old. The results showed that 22% of the respondents belonged to the 28-35 age group, while the majority, 55%, fell within the 36-43 age range.
Additionally, 18% of the respondents were aged between 44 and 51, and 5% were between 52 and 60 years old.

Ethnicity was categorized into four groups: Indian, Chinese, Malay, and others. The study found that 5.8% of the respondents were Indian, 6.6% were Chinese, 86.0% were Malay, and 1.6% represented other ethnicities. Notably, the majority of the respondents were Malay.

Income level was another variable examined in the study. The results indicated that 55.3% of the respondents had an income below RM4,850, 38.4% earned between RM4,851 and RM10,959, and 6.3% had incomes exceeding RM10,960. Most respondents fell into the lower income bracket, earning less than RM4,850.

Occupation categories included self-employed individuals (1.3% of respondents), government workers (79.1%), private workers (16.7%), unemployed individuals (1.3%), and retired individuals (1.6%). The study found that a significant proportion of the respondents were employed in government positions. Education level was assessed based on the qualifications of the respondents. The findings revealed that 1.3% had no qualifications, 5.6% held primary school certificates, 22.5% had secondary school certificates, 28.6% possessed diploma certificates, 31.7% held bachelor's degrees, 9.0% had postgraduate qualifications, and 1.3% held other certificates. These results suggest that the respondents had generally attained a higher level of education.

Figure 1: Distribution of respondents according to age
Figure 2: Distribution of respondents according to ethnicity

Source: Prepared by the author

Figure 3: Distribution of respondents according to income levels

Source: Prepared by the author

Figure 4: Distribution of respondents according to occupation

Source: Prepared by the author
4.3 PATH ANALYSIS

Path analysis is a statistical technique to explore the relationships between multiple variables. It falls under the category of structural equation modelling and aims to assess a proposed causal model by examining the direct and indirect effects of independent variables on a dependent variable. The process involves constructing a model based on a theoretical framework or previous research, outlining the proposed causal connections between the variables.

In path analysis, each variable in the model is regressed on one or more other variables through a series of linear equations. The path coefficients depict the strength and direction of the correlations between the variables. This approach enables investigating intricate relationships, including direct and indirect effects.

Direct effects represent the relationship between two variables without the involvement of any other variables in the model, while indirect effects involve one or more additional factors acting as mediators. By employing path analysis, researchers can gain insights into the complex interplay among variables, considering both their direct and indirect impacts.

Path analysis has practical implications across various disciplines, such as psychology, sociology, and economics, as it enables researchers to gain insight into the underlying mechanisms influencing behaviour or outcomes. This study aimed to assess parents’ knowledge and attitudes regarding the health effects of secondhand smoke (SHS) based on their demographic characteristics, as presented in Tables 3 and 4 and Figures 6 and 7.
Five demographic factors, namely age, education, employment, economic level, and ethnicity, were examined to determine their impact on parents' views and knowledge. The results indicated that none of these demographic categories significantly influenced parents' attitudes and knowledge regarding SHS. However, an important finding was that parental wealth had a substantial and negative direct effect on the health concerns associated with children's exposure to smoking.

This suggests that parents with higher incomes may have a diminished awareness of the health risks posed by smoking to their children (Valencia et al., 2019; Jeong et al., 2021). It is possible that these parents, with their financial means, are more likely to afford air purifiers, reside in larger homes, and designate smoking areas away from their children. These factors may contribute to their reduced perception of the hazards of smoking exposure on their children's health.

Table 3: Results from Path Analysis – Moderation effect of parent’s attitude factor

<table>
<thead>
<tr>
<th>Paths</th>
<th>Beta</th>
<th>SD</th>
<th>T-value</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>A -&gt; CHR</td>
<td>0.242</td>
<td>0.052</td>
<td>4.651</td>
<td>0.000</td>
</tr>
<tr>
<td>Age -&gt; CHR</td>
<td>0.004</td>
<td>0.061</td>
<td>0.061</td>
<td>0.952</td>
</tr>
<tr>
<td>Age*A -&gt; CHR</td>
<td>-0.07</td>
<td>0.096</td>
<td>0.733</td>
<td>0.464</td>
</tr>
<tr>
<td>Edu*A -&gt; CHR</td>
<td>0.071</td>
<td>0.075</td>
<td>0.948</td>
<td>0.343</td>
</tr>
<tr>
<td>Education -&gt; CHR</td>
<td>0.044</td>
<td>0.053</td>
<td>0.823</td>
<td>0.411</td>
</tr>
<tr>
<td>Ethn*A -&gt; CHR</td>
<td>0.075</td>
<td>0.088</td>
<td>0.855</td>
<td>0.393</td>
</tr>
<tr>
<td>Ethnicity -&gt; CHR</td>
<td>-0.009</td>
<td>0.065</td>
<td>0.135</td>
<td>0.892</td>
</tr>
<tr>
<td>Inco*A -&gt; CHR</td>
<td>-0.093</td>
<td>0.081</td>
<td>1.146</td>
<td>0.252</td>
</tr>
<tr>
<td>Income -&gt; CHR</td>
<td>-0.144</td>
<td>0.053</td>
<td>2.711</td>
<td>0.007</td>
</tr>
<tr>
<td>Occu*A -&gt; CHR</td>
<td>-0.069</td>
<td>0.16</td>
<td>0.435</td>
<td>0.664</td>
</tr>
<tr>
<td>Occupation -&gt; CHR</td>
<td>-0.016</td>
<td>0.085</td>
<td>0.189</td>
<td>0.850</td>
</tr>
</tbody>
</table>

Keywords: A = Parents' attitude, Edu = Education, Ethn = Ethnicity, Inco = Income, Occu = Occupation, and CHR = Children health risks from exposure to smoking

Source: Prepared by the author

Table 4: The Path Analysis (2) – Moderation effect of parent’s knowledge factor

<table>
<thead>
<tr>
<th>Paths</th>
<th>Beta</th>
<th>SD</th>
<th>T-value</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age -&gt; CHR</td>
<td>-0.054</td>
<td>0.057</td>
<td>0.941</td>
<td>0.347</td>
</tr>
<tr>
<td>Education -&gt; CHR</td>
<td>-0.002</td>
<td>0.055</td>
<td>0.03</td>
<td>0.976</td>
</tr>
<tr>
<td>Ethnicity -&gt; CHR</td>
<td>-0.023</td>
<td>0.071</td>
<td>0.32</td>
<td>0.749</td>
</tr>
<tr>
<td>Income -&gt; CHR</td>
<td>-0.141</td>
<td>0.052</td>
<td>2.704</td>
<td>0.007</td>
</tr>
<tr>
<td>K -&gt; CHR</td>
<td>0.097</td>
<td>0.062</td>
<td>1.576</td>
<td>0.116</td>
</tr>
<tr>
<td>K * Age -&gt; CHR</td>
<td>0.03</td>
<td>0.078</td>
<td>0.389</td>
<td>0.698</td>
</tr>
<tr>
<td>K * Edu -&gt; CHR</td>
<td>-0.02</td>
<td>0.072</td>
<td>0.275</td>
<td>0.783</td>
</tr>
<tr>
<td>K * Ethn -&gt; CHR</td>
<td>-0.047</td>
<td>0.068</td>
<td>0.692</td>
<td>0.489</td>
</tr>
<tr>
<td>K * Income -&gt; CHR</td>
<td>-0.003</td>
<td>0.067</td>
<td>0.038</td>
<td>0.97</td>
</tr>
<tr>
<td>K * Occu -&gt; CHR</td>
<td>0.04</td>
<td>0.08</td>
<td>0.495</td>
<td>0.621</td>
</tr>
<tr>
<td>Occupation -&gt; CHR</td>
<td>0.006</td>
<td>0.062</td>
<td>0.104</td>
<td>0.917</td>
</tr>
</tbody>
</table>

Keywords: K = Parents' knowledge, Edu = Education, Ethn = Ethnicity, Inco = Income, Occu = Occupation, and CHR = Children health risks from exposure to smoking

Source: Prepared by the author
Figure 6: The Path Analysis – Moderation effect illustration of attitude factor

Source: Prepared by the author

Figure 7: The Path Analysis – Moderation effect illustration of the knowledge factor

Source: Prepared by the author
5 DISCUSSION

The study examined the demographic characteristics of the research participants through various tests and conducted path analysis on the research variables. Age, education, employment, income level, and ethnicity were the five demographic factors that the path analysis revealed had no significant impact. However, the health risks associated with children's exposure to smoking were found to be directly correlated with parental wealth, showing a significant and unfavourable association. This implies that higher-income parents are less concerned about children's health risks from smoking exposure (Valencia et al., 2019; Jeong et al., 2021). This could be attributed to higher-income parents having the means to reside in larger houses, invest in air purifiers, and establish designated smoking areas away from children.

These findings contradict previous studies and theories that have linked poor health knowledge with a lack of access to health information, problematic health behaviours, adverse health outcomes, underutilization of health services, and higher healthcare expenses (de Buhr and Tannen, 2020). Parents, especially those with young children, play a crucial role as caregivers, being responsible not only for their own lives and health but also for the health and well-being of their children (Posis et al., 2019). Children rely on their parents to prevent and address health issues, and they may suffer due to their parents’ inadequate knowledge and skills in this domain. Parental literacy has been identified as a significant factor influencing child health inequalities in previous research by Morrison et al. (2019). Low parental health knowledge has been associated with unmet healthcare needs of children, unnecessary visits to emergency rooms, ineffective injury prevention, medication errors, poor childhood nutrition, inaccurate perceptions of children's weight (e.g., overweight children being perceived as average weight or underweight), and an increased risk of secondhand tobacco smoke exposure (de Buhr et al., 2020).

In Malaysia, a wide range of nicotine delivery systems is available, including cigarettes, e-cigarettes, hookahs, and shisha (Lim et al., 2021). Despite the negative public perception of smoking, extensive anti-smoking education, and strict regulations, there have been reports of parents heavily smoking indoors. Positive attitudes towards smoking have been linked to actual smoking behaviour. Studies have demonstrated that having a parent who smokes increases the likelihood of children initiating smoking, as they tend
to imitate their parent's behaviour and adopt similar smoking attitudes, norms, and beliefs (Díez-Izquierdo et al., 2018; Heba Jafar et al., 2020).

However, authoritative parenting, characterized by mutual respect between parents and children, maternal expectations that discourage smoking, and parental control, acts as a protective factor against smoking initiation. Various demographic characteristics, such as age, gender, ethnicity, income level, education level, and employment, significantly influence parents' smoking habits. It has been observed that parents with higher incomes are more likely to smoke compared to those with lower incomes (Kusumawardani et al., 2018). Moreover, parents with higher education levels are more aware of the risks associated with smoking and its impact on their children (Qiu and Hou, 2020). Additionally, research has shown that fathers are more prone to smoking than mothers, highlighting the association between paternal smoking and the detrimental effects of secondhand smoke on children (Wilkinson et al., 2008).

Occupational status plays a significant role in smoking behaviour, as higher-ranking employees are less likely to smoke than employees in lower management positions (Yazdani et al., 2018). Therefore, it is essential to consider the influence of demographic characteristics. The study conducted by Lim et al. (2020) aimed to determine the prevalence of secondhand smoke (SHS) exposure in the vehicles of Malaysian school-going teenagers aged 11 to 19. A representative questionnaire was used to gather data on SHS exposure. The study found that 23.3% of parents' vehicles had a high prevalence of SHS exposure. The results indicated that Malay students had a higher exposure rate (26.4%, 95% confidence interval [CI]: 24.9-27.9%) compared to Chinese students (11.9%, 95% CI: 9.9-14.1%), students from rural areas (26.9%, 95% CI: 25.2-28.7%), and students overall. The data were analysed using statistical methods such as multiple logistic regression and chi-square testing.

It is important to note that the current study has a broader focus compared to Lim et al.'s study (2020), as it specifically examines the health impacts of SHS exposure on children aged 3 to 10. Previous research has shown that smoke-free laws positively influence promoting of smoke-free environments, particularly in private settings (Monson and Arsenault, 2017). However, despite these measures, many individuals, especially children, continue to be exposed to SHS, often within their homes. For instance, in 2016, 14% of children in Portugal were reported to have SHS exposure at home (Precioso et al., 2019). As a result, the burden of illness associated with SHS exposure remains significant.
In the European Union (EU) countries alone, SHS exposure led to 67,000 fatalities and 1.5 million DALYs (Disability-Adjusted Life Years) in adults in 2017 (Network, 2018).

Yuan et al. (2019) conducted a research study to investigate the correlation between choroidal thickness and exposure to secondhand smoke in children. The study was conducted at the Chinese University of Hong Kong Eye Centre, as part of the Hong Kong Children's Eye Study, between January 2016 and July 2017. Children aged 6 to 8 were randomly selected from the population for participation. Comprehensive eye examinations were carried out on all participants, and choroidal thickness was measured using swept-source optical coherence tomography. The imaging analysis involved specialised software that automatically segmented the choroid layer. To gather information on secondhand smoking history, a questionnaire was employed. Multiple linear regression models were utilised to determine the association between choroidal thickness and exposure to secondhand smoke while considering potential confounding variables. These models allowed for controlling the influence of other factors that could impact the relationship.

6 CONCLUSION

The five demographic characteristics, namely age, education, employment, income level, and ethnicity, did not significantly impact parents' knowledge and attitudes regarding the health effects of secondhand smoking (SHS). However, the study revealed a significant and direct correlation between parental wealth and children's health risks associated with smoking exposure. This suggests that lower-income parents are less likely to smoke and jeopardize their children's health. This could be attributed to their ability to afford larger homes, air purifiers, and designated smoking areas away from young children. Previous research has indicated that more youthful, educated, and non-smoking parents are more likely to possess greater knowledge about SHS and hold unfavourable opinions.

Furthermore, parents living in urban areas and those with higher income levels may exhibit better knowledge and attitudes than their rural counterparts or those with lower incomes. However, it is important to acknowledge that many parents may still lack sufficient knowledge about the harmful effects of SHS or hold positive attitudes toward smoking. This highlights the importance of targeted education and intervention initiatives to enhance awareness and promote healthy behaviours among all parents, irrespective of
their demographic characteristics. Increasing knowledge and fostering negative attitudes toward SHS among parents play a critical role in safeguarding children's health and reducing smoking-related diseases in society.

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