THE EXPERIENCE OF CROWDING, PSYCHOLOGICAL HEALTH: CRITICAL ISSU

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Abstract

Studies of Crowding have focused on different factors, physical space, density, group size, room size, degree of interaction, type of activity, goal blocking, affective measures and personal control. Though these factors have provided helpful insights into the problem, they have not been able to provide an integrated conceptualization of the psychological experience of crowding. Crowding has been viewed as a loss of control over the environment. In addition, there are cognitive components which reduce the predictability or the appraisal of the personal significance of experienced environmental stressors. Density is evaluated as stressful or annoying when the individual cannot pursue desired behaviours and when these negative consequences are unavoidable. Researchers have been unable to agree on the consequences of crowding, some have reported detrimental effects on physical health and behaviour. Others have reported little or no effects. Withdrawal and territoriality are some of the coping mechanisms employed by people to avoid the consequences of crowding. There appears to be some agreement that crowding affects child care, parental stress and academic performance. Teachers find it difficult and stressful to discipline children in crowded classrooms. Though the situational factors may or may not change, the individual's reactions to crowding are different. Some people develop adaptive capacities and handle these situations with ease. Others may suffer from adverse stressful reactions and may develop issues of impaired physical or psychological health.

Earlier studies have focused on the physical aspects of the environment and its effects on people. Later the socio-cultural aspects of the environment and the relationship between the person and the environment became important Stools (1972, 1978). Early density research suggests that negative effects are most likely to occur when crowding occurs in the individual's primary environment (Stokols, 1976). A primary environment is where one spends a great deal of time and where one has important personal relationships. Living in an overcrowded space is a source of stress and causes illnesses linked to anxiety. People who live in overcrowded housing suffer from not being able to control outside demands. It is impossible for them to have the necessary minimum amount of quiet time they need for their personal development Gove and his colleagues linked family crowding to poor physical and mental health, marital dissatisfaction and poor child care. In contrast, Booth and his associates (Booth & Johnson, 1975; Booth, 1976; Edwards & Booth, 1977; Edwards, Booth, & Edwards, 1982) found that crowded living conditions produced few negative effects. Crowding may occur in the neighborhood, schools, malls, theatres and have a great impact on people. Some situations may cause alarm and panic in individuals. A crowded experience maybe pleasurable for some and offer some benefits and services to people. People may not experience negative effects when they are visiting a place of worship, game arena or entertainment centre. When people have to face crowded situations in their family life on a daily basis without any space for leisure activities or privacy, they may find situations stressful or conflicting. Objective crowding refers to density or the amount of space available to each person. Subjective or perceived crowding

describes the feeling of being crowded. The effects of each can be measured separately or in conjunction with one another. The impact of perceived crowding is mediated by various sociological and psychological factors whose effects should be specified and measured.

Baum and Paulus (1987) have asserted that one of the most central and important behavioral consequence of negative affective and cognitive responses to crowded situations, is the coping process. They explained that the notion of coping is concerned with how people deal explicitly with crowding and with stressful situations. Amole (1997) said that increase in population in university dormitories led to lack of privacy and space and produced more feelings of dissatisfaction and negative responses from students. Baum and Koman (1976) have suggested that withdrawal strategies are a reaction to socially dense conditions, whereas control or territorial strategies are responses to high spatial densities.The negative responses following such perceptions have included feeling little control over one's activities, less satisfaction with the housing situation, and less privacy (Aiello, Baum, & Gormley, 1981; Gormley & Aiello, 1982). The most common response, more frequent among men than women, has been withdrawal and spending as little time in the rooms as possible. Although dormitory relationships are not always either intimate or long-lasting, these results again suggest the negative effects of crowded living arrangements. Gove and his colleagues (Gove et al., 1979; Gove & Hughes, 1983) showed that subjectively perceived crowding was related to poor child care, as indicated by lack of supervision, lack of privacy for youngsters, and parental feelings that children were irritants.

Booth and Johnson (1975) also indicated that objective crowding affects child care, discovering a slight but statistically significant relationship between it and declining health and school performance. Children from more crowded homes have greater behavioral problems in the classroom (Evans, Lepore, Shejwal,&Palsane, 1998; Saegert, 1982), and there is greater conflict among parents and children in more crowded homes (Booth & Edwards, 1976; Evans et al., 1998; Saegert, 1982). Parents in more crowded homes are also more critical and less responsive to their children (Bradley&Caldwell, 1984; Evans, Maxwell, & Hart, 1999; Wachs, 1989). Stimulus overload models suggest that perceived crowding results when the amount of stimuli exceeds processing capapcity. Saegert (1978) found that density is a special case of cognitive overload because of the behavioural consequences of social stimulation. High density situations make it difficult to predict and control situations and increases problems of focusing and concentration on the task at hand. Density is viewed as annoying when the person cannot pursue desired goals or behaviours and when there are negative consequences. Sundstrom (1978) separated situational antecedents from psychological and behavioral consequences and provided a framework for the systematic explanation of the effects of the experience of crowding. Stokols (1978) presented a typology of crowding experiences that differentiated their situational, psychological and behavioral components. Most research on crowding and mental health has attempted to uncover direct relations between household density and various indices of psychological well being. Generally, there is good support for the claim that higher levels of interior residential density (people per room) are associated with elevated levels of psychological distress among adults (Marsella et al., 1970; Hassen, 1977; Gove & Hughes,1983; Gabe & Williams, 1987; Jain, 1987; Evans et al;1989; Edwards et al;1990; Lepore et al;1991).

If information overload does contribute significantly to stress in crowded situations, numerous design and planning solutions might be expected to reduce the negative aspects of crowding. Clear

articulation and orientation-facilitating design would be essential for crowded spaces. People should be presented with relatively few choice-points and a clear path for pursuing their goals in the situations. One explanation for why crowding may be harmful to people is because of the loss of control over social interactions that frequently accompany high-density living (Altman, 1975; Baron & Rodin, 1978; Schmidt & Keating, 1979). Rodin (1976) reasoned that frequent, uncontrollable social interactions that occur under crowded living conditions might lead to a loss of self-efficacy in children and be manifested by elevated susceptibility to learned helplessness. She compared well-matched, elementary school aged children and young adolescents living under high- or low-density conditions on age-appropriate indices of helplessness. The results in both samples confirmed her hypotheses. Evans et al. (1998) found parallel data among children living under high residential density in India, although the association between crowding and helplessness held only for girls. Baum and colleagues, in an extensive program of research on crowding in college dormitories, demonstrated that residents of more crowded dorms felt less control over social interaction and exhibited more helpless behaviors in a group interaction game than their less-crowded counterparts (Baum, Gatchel, Aiello, & Thompson, 1981; Baum & Valins, 1977; 1979). High-density laboratory conditions also produce crowding aftereffects among adults on unsolvable puzzles (Evans, 1979; Nicosia, Hyman, Karlin, Epstein, & Aiello, 1979; Sherrod, 1974) that are indicative of motivational deficits related to helplessness (Cohen, 1980; Glass&Singer, 1972). Using a similar paradigm, Fleming, Baum, and Weiss (1987) showed parallel data in a field study of neighborhood crowding.

Prior research in school settings has primarily examined density in the context of school size and class size. In smaller schools (high schools with fewer than 500 students), Barker and Gump (1964) found that more students participated in extracurricular activities, had more positive self-images, showed greater personal responsibility, and were more sensitive to the needs of other students. Lower incidence of crime and less serious student misconduct has also been noted in smaller schools (Garbarino, 1980). Smaller schools seem to foster a greater sense of personal responsibility in students. In addition, researchers have found a positive relation between academic achievement and smaller school size (elementary schools between 100 and 200 students), especially for low-income inner-city students (Fowler, 1992; Summers & Wolfe, 1977). Small class size can foster many of the same positive findings as indicated for small schools. Increased emphasis on friendship formation (Moos, 1979), increased voluntary student participation, positive affect for both students and teachers, and higher achievement scores are all associated with smaller class sizes (Fowler, 1992). Increased student participation and positive student and teacher attitude may mediate the higher achievement levels (Moore&Lackney, 1993). Lower academic achievement levels and less persistence on academic tasks are associated with children living in crowded homes (Evans, Saegert, et al; 2001; Saegert; 1982). Children from crowded homes and new to a nursery school setting were more likely to be unoccupied and display onlooker behavior than children from less crowded homes (Liddell & Kruger, 1987, 1989). In crowded homes, parents exhibit less verbal responsiveness to their children (Evans, Maxwell, &Hart, 1999), there is more parent-child conflict (Booth & Edwards, 1976; Evans, Lepore, Shejwal & Palsane, 1998), and parents have more difficulty controlling their children (Fuller, 1993). Children from crowded homes also display increased aggressive behavior in day care (Maxwell, 1996).

A study conducted by (Evans, Saegert and Harris et al; 2001) examined the relationship between residential density and psychological health among children in low income families. Data

from both the urban and rural low-income samples indicated a positive relation between household density and psychological symptoms. They conducted two independent studies that represent the first findings on crowding and a standardized psychological health index for children. The trends they uncovered are consistent with studies that have found positive relations between household density and poorer psychological health among adults (Edwards et al., 1990; Evans, 1979; Gabe &Williams, 1987; Gove & Hughes, 1983; Hassen,1977; Jain, 1987; Lakey,1989; Lepore, Evans, & Schneider,1991; Marcella et al;1970). Evans et al. (1998) were able to show that parent-child conflict mediated the positive association between residential crowding and teacher ratings of behavioral disruption in the classroom. For the rural but not the urban sample, they also uncovered a gender by density interaction on psychological health. Boys appeared to suffer greater psychological distress in relation to residential crowding. This gender effect is consistent with earlier work by Wachs (1989), showing that male but not female infants and toddlers reacted negatively to crowding in the home, although his research was focused on cognitive development. These findings conceptually replicate both Rodin (1976) and Evans et al. (1998) who found that children from high versus low density homes were more vulnerable to the induction of learned helplessness following exposure to unsolvable puzzles. Furthermore, crowded girls and boys in the two samples manifested motivational deficits related to learned helplessness in comparison to their less crowded counterparts. Young children living in more crowded homes are less likely to persist when confronted with a challenging puzzle. The latter finding has been shown in two prior studies (Evans et al., 1998; Rodin, 1976).

A study by Kearney (2006) explored the impacts of residential density and nature areas on residents' satisfaction with their neighborhood. Increased density, in turn, may not only have direct negative social and psychological consequences (Evans, Saegert, & Harris, 2001; Saegert, 1978) but may lead to a sense of crowding and an accompanying host of problems. The perception of crowding in the neighborhood has been found, for example, to be a significant negative factor in overall residential satisfaction (Bonnes, Bonaiuto & Ercolani, 1991). Perception of crowding is influenced not only by density level but by the particular situation, the people involved, behaviors, level of control, and expectations (Schmidt, Goldman, & Feimer, 1979; Sherrod, 1974). Desor (1972) showed that perceptions of crowding varied by overall level of social stimulation, supporting the notion that feeling crowded is due to excessive social stimulation and not merely a lack of space. Despite the value that people seem to place on large lot, low-density residential development, the study found that actual density might not affect neighborhood satisfaction. The presence of shared outdoor areas, opportunities to visit these areas and the nature views they afford was important to neighborhood satisfaction. Furthermore, the presence of shared nature areas may help to ameliorate some of the negative perceptions associated with higher residential density. Results showed little or no effect of either density or proximity. Although other studies have found relationships between density and neighborhood satisfaction, residents self-selected to the density levels in this study and the highest densities did not approach those found elsewhere to have negative psychological effects (e.g., Evans et al., 2001). An important finding of the study is that regardless of density level, the presence of nature views and the reduction of views of neighbour's houses reduced negative feelings about density.

Research studies have shown that crowding has effects on children as well as adults. There may be some negative effects on every aspect of people's lives. The reasons for the results found by the

researchers may not only be due to outside density but it is more significantly related to the experience of crowding. Factors maybe the stressful living environments people have to face in their daily lives. One may also be affected by the long term impact of experiential crowding in their homes or primary environments which may reduce their coping abilities. These effects may impact physical health and psychological well-being.

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