Medicine, Morality and Mothering: Public Health Discourses on Foetal Alcohol Exposure, Smoking Around Children and Childhood Overnutrition

Kirsten Bell, Darlene McNaughton and Amy Salmon

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Abstract
Over the past few decades, three issues have emerged as threats to the health of infants and children in western, industrialised countries: the developmental impact of alcohol use in pregnancy (Foetal Alcohol Spectrum Disorder, or FASD), children's exposure to secondhand smoke in the home, and childhood overnutrition and obesity. The definitive role of drinking during pregnancy, exposure to secondhand smoke and overnutrition on negative health outcomes in infants and children remains the subject of considerable debate. Nevertheless, all three issues have been medicalised and criminalised: framed as looming health emergencies that require immediate intervention and, increasingly, legislation. However, it is our contention that the alarm these health 'threats' currently generate has many of the characteristics of a moral panic. In this paper we unpack the discourses surrounding these three issues, and explore the common focus on maternal responsibility and the ways in which these movements serve to covertly marginalise and stigmatise particular groups of women.

> "When most of us think of child abuse we usually think of sexual, physical, or emotional abuse and neglect. But there is another kind of abuse that occurs before the child is even born. It is called fetal alcohol syndrome and it affects more than 40,000 children each year in the United States" (Wade 2006).
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> "Parental smoking each year kills at least 6,200 children; causes 5.4 million serious ailments such as ear infections and asthma; costs $4.6 billion annually in medical expenses alone… more children are killed by parental smoking than by all unintentional injuries combined" (ASH 2006).
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> "When parents fail to act in their child's best interests with regard to their weight… then the obesity becomes a child protection concern... We are making our children diabetic and even killing our children by our feeding habits" (Templeton 2007a).

Introduction
Although drinking, smoking and overeating have long been a focus of social and moral opprobium, during the last decades of the twentieth century these behaviours came under a new form of attack from the field of 'expert' knowledge and action that has come to be known as 'the new public health' (Petersen and Lupton 1997, ix). The admonishment to "'Lose weight!' 'Avoid fat!' 'Stop smoking!' 'Reduce alcohol intake!'" (Petersen and

Lupton 1997, ix), familiar to us all from health promotion campaigns and visits to the doctor's office, is the key catch cry of the new public health.[1] It speaks to a discursive transformation in which 'vices' previously deemed morally suspect have become more legitimately condemned as 'unhealthy' behaviours – risk factors for all manner of health ailments from cancer to diabetes and heart disease.

Despite the apparently neutral logic of public health discourse, a number of scholars (Crawford 1985, 1994, 2004; Foucault 1994; Bunton, Nettleton and Burrows 1995; Lupton 1995; Petersen and Lupton 1997; Petersen and Bunton 1997) have pointed to the moral dimensions of the concept of health. As Crawford (1994, 1352) notes, health has become a metaphor for self-control, self-denial and willpower; it is a moral discourse, an opportunity to reaffirm the values by which the Self is separated from the Other (Crawford 1994). A burgeoning body of literature has also illuminated the specific medico-moral discourses that underpin contemporary health discourse and policy on drinking (e.g. Conrad and Schneider 1992; Valverde 1998), smoking (e.g. Sullum 1998; Berridge 1999) and obesity (e.g., Austin 1999; Gard and Wright 2004; Campos 2004; Campos *et al.* 2006; Murray 2008). We do not intend to tackle these broader movements, but instead focus on the dominant discourses regarding the apparent 'victims' of these 'unhealthy' behaviours – the 'children' exposed to alcohol in-utero, the infants and children exposed to parental smoking, and those foetuses, infants and children 'overfed' by their parents (who themselves are invariably cast as overweight).

The impetus for this paper is our shared concern with the punitive and value-laden language that is increasingly being used to describe the exposure of foetuses/children to substances that have the potential to damage their health (alcohol, tobacco and fatty foods) and the moral assumptions that seem to underpin these discourses. As researchers conducting both critical and applied research within the fields of alcohol (see Salmon 2004, 2007a, 2007b), tobacco (see Bell *et al.* 2006a, 2006b; Richardson *et al*. 2007) and obesity (Bell and McNaughton 2007), we have been struck by intriguing parallels in the way that all three issues are talked about – parallels that seem worthy of further exploration. In particular, discourses on child exposure to secondhand smoke and more recent calls for drastic measures to reduce childhood obesity bear a strong resemblance to older health promotion messaging and public health efforts to reduce foetal alcohol exposure. Unfortunately, the same problems identified by early critics of FAE/FASD discourses appear to underwrite many of these newer discourses on secondhand smoke and childhood obesity, which seem to replicate earlier assumptions about the nature of 'risk' and where responsibility for health lies.

Our goal in this paper, informed by our shared interest in feminist materialist and poststructuralist methods, is to critically examine the discourses on the three issues under consideration. Although there is no unitary theoretical framework or methodology for critical discourse analysis (van Dijk 1999; Antaki *et al.* 2003; McGregor 2003), by drawing upon a diverse range of materials we aim to demonstrate that certain discourses have become increasingly prominent in media representations, public health and health promotion resources *and* academic public health research in all three areas. Given the breadth of materials available on foetal alcohol exposure, exposure to secondhand smoke

and childhood overnutriition, it is far beyond the scope of this paper to provide a comprehensive examination of all three areas. Our intent is to conduct a preliminary and exploratory analysis that illuminates certain common threads and assumptions uniting the three discourses that we argue are worthy of further critical consideration and study. As such, our analysis focuses primarily on fleshing out our initial insights regarding the areas of convergence between the public health and popular discourses on the three issues that constitute the focus of this paper.

Research over the past thirty years (and continuing unabated in the present) highlights the 'devastating' short- and long-term health consequences of the 'vices' that parents 'inflict' on their 'innocent' offspring. Foetal alcohol exposure has been linked with compromised physiological and cognitive (Jones *et al.* 1973; Jones and Smith 1973), poorly developed and maladaptive social skills (Bert and Greene Bert 1992; Black 1993), and poor school performance (Asetoyer 1990; Black 1993; Burgess and Streissguth 1992). Secondhand smoke exposure in children has been linked with sudden infant death syndrome (USDHHS 2006), as well as compromised cognitive development (Jacobsen *et al.* 2007), poorly developed social skills (Washam 2008), poor school performance (Collins *et al.* 2007), increased risk of respiratory illness (USDHHS 2006) and increased long term risks of cancer and heart disease (Janerich *et al.* 1990). The growing list of ailments associated with childhood obesity also looks strikingly similar, and includes compromised cognitive development (Mond *et al.* 2007), poorly developed social skills (Strauss 2000; Erickson *et al*. 2000), poor school performance (Friedlander et al. 2003), increased risk of respiratory illness (Kopel and Klein 2008; Taveras *et al.* 2008), and increased long term risks of cancer and heart disease (Bjørge *et al.* 2008; Robinson, Poole and Godley 2008). While we acknowledge that exposure to alcohol, cigarette smoke, and obesity may entail some negative health consequences for offspring, we are concerned with the extreme tone of some popular and public health discourse on these issues. As the selection of popular commentaries presented at the beginning of this paper illustrate, a strikingly similar language is used to describe foetal alcohol exposure, smoking around children and childhood overnutrition, with emotionally loaded terms such as 'kill' and 'abuse' featuring prominently.

The central premise of this paper is that the media and public health reaction that alcohol use in pregnancy, secondhand smoke exposure amongst children, and childhood overnutrition have generated has many of the characteristics of a 'moral panic'.[2] Stanley Cohen (1972) coined this term to describe a situation in which an identifiable, usually marginalised behaviour (or group) comes to stand as a signifier of a generalised social crisis and is represented by hegemonic institutions as threatening or antagonistic to the morals, values or interests of society as a whole (Cohen 1972; Thompson 2001). In the context of each of the three public health movements under consideration, we will demonstrate a shared and increasing concern regarding the 'problems' and 'threats' posed by the individualised behaviours of parents (and mothers in particular), whose actions are constructed as dangerous to the interests of their children, families, communities and nations.

Overstating the Threat

Cohen (1972) argues that a key characteristic of a moral panic is the surge in public concern about the 'threat' – which overstates the actual danger the subject of the panic poses. Similarly, we would assert that while there is a growing body of evidence which points to the negative health impacts of foetal alcohol exposure, childhood exposure to tobacco smoke, and childhood overnutrition, the evidence on the health impacts of these behaviours tends to be overstated in the media, health policy and popular discourse. Much of the available evidence comes from observational epidemiological studies and clinical case reports that are limited in their ability to infer causation. "Concerns about bias apply to any study of an environmental agent and disease risk: misclassification of exposures or outcomes, confounding effect modification, and proper selection of study participants" (USDHHS 2006, 15). Indeed, in each of the three issues under examination, questions have been raised about the relationship between exposure and outcome. Echoing Austin's (1999, 245) comment about nutritional pubic health discourse, we suggest that the current assessments of the state of evidence regarding the health 'risks' attached to foetal alcohol exposure, childhood exposure to tobacco smoke and childhood overnutrition should be viewed as an ideological project as much as an empirically driven one.

Drinking in pregnancy: 'No safe time. No safe amount. No safe alcohol. Period.'[3]

Since the late 1980s, the official position of most North American public health agencies regarding the consumption of alcohol during pregnancy has been the need for complete abstention: pregnant women are warned explicitly and repeatedly that any amount of alcohol consumed at any time during pregnancy carries a substantial risk for birth defects (e.g. NOFAS 2004; CDC 2008). However, in early research documenting the relative risks of foetal alcohol exposure, 4.5% of children of mothers who received adequate nutrition during pregnancy demonstrated symptoms of FASD, compared to 71% of children born to mothers who were malnourished during pregnancy (Bingol et al. 1987). As a result of these and other findings, a number of researchers have identified compromised nutritional status during pregnancy – a primary indicator for poverty – as a key variable accounting for disparate outcomes (e.g. Bingol *et al*. 1987; Abel and Hannigan 1995; George 2001). Indeed, Abel and Hannigan (1995) argue that alcohol acts as a teratogen only when accompanied by other "permissive and provocative" co-factors, including malnutrition, smoking, stress, and exposure to environmental toxins during pregnancy.

Recent research into early interventions and rescue treatments for infants and children exposed to alcohol in-utero supports such assertions, as these studies found that mothers and infants who received comprehensive clinical, nutritional, social, developmental and educational supports early in life showed outcomes remarkably similar to their non-exposed peers (Motz *et al.* 2006). Moreover, while an overwhelming body of research suggests that binge drinking is of greatest concern for FASD prevention (e.g., May et al. 2006), pregnant women and breastfeeding mothers are repeatedly inundated with public health messaging that suggests that even one drink may be harmful and that any and all alcohol – or products containing alcohol – must be avoided to ensure complete prevention efforts.[4]

Secondhand smoke: 'No amount of secondhand smoke is safe!'

Since the mid-1990s, the position that "no amount of secondhand smoke is safe" has achieved hegemonic status. Interestingly, this catchphrase bears striking similarity to the FASD messaging. The position of the Centers for Disease Control and Prevention (CDC 2006) is that: "It [secondhand smoke] hurts you. It doesn't take much. It doesn't take long". A CDC poster informs the public of the dangers of "sitting in a 'no smoking' section, even if it doesn't smell smoky" and "being in a house where people are smoking, even if you're in another room" – which are implicitly equated with sitting in a small, unventilated room with a chain smoker.

Despite the absolute tone of public health messaging on secondhand smoke, a body of research suggests that evidence on the health effects of environmental tobacco smoke is overstated[5] (e.g., Sullum 1998, ASCH 1999, Enstrom and Kabat 2003). Indeed, virtually all of the available research supports the existence of a dose-response relationship for potential harms to children (e.g. Anderson and Cook 1997; Strachan and Cook 1997; Cook and Strachan 1997; Cook and Strachan 1999). Thus, while fleeting exposure may lead to acute effects such as eye, nasal and throat irritation, it appears that the more significant health risks (i.e. respiratory ailments, lung cancer and heart disease) are limited to intensive and prolonged exposure.[6] However, despite the evidence that not all exposures are the same, as indicated above, public health organisations such as the CDC generally conceptualise the risks of transient exposure as if equivalent to years of sustained contact.

Childhood obesity: 'All fat is bad and all children are at risk'

While a concern with the origins and effects of childhood obesity has been evident since at least the 1920s (Schwartz 1986; Saukko 1999), the sporadic interest in this issue witnessed in previous periods bears little resemblance to the intense frenzy that childhood obesity and overnutrition have generated over the past decade amongst health professionals, the media and the public. Although discourses on childhood obesity and overnutrition are still in flux, the position that "all fat is dangerous and that all children are particularly at risk" (Gard and Wright 2004, 25) is becoming increasingly mainstream. However, despite a growing certainty in public health circles that "fat is a killer", the available evidence is "…replete with flawed and misleading assumptions" (Gard and Wright 2004, 3; see also Campos 2004). For example, although childhood overnutrition is often deemed to be the key cause of obesity, a review of international studies found little evidence to suggest that overweight and obese children consume more calories than other children – with the exception of children experiencing the "highest indices of obesity", where a correlation was found between body weight and the amount of protein consumed (Rolland-Cachera and Bellisle 2002).

Yet, despite the inconclusive state of the evidence on both the causes of obesity and its impact on health, media reports (see Campos 2008 for a discussion) and public health campaigns are increasingly exhorting parents to vigilantly monitor their children's weight. For example, the US Department of Health and Human Services' (USDHHS 2008) 'We Can! Ways to Enhance Children's Activity and Nutrition' campaign warns parents that "calories count, no matter what the source". The "tips" provided are virtually

identical to those advocated by commercial weight loss organisations such as WeightWatchers, with one important difference – the framework is *preventive* rather than *corrective.* As Gard and Wright (2004, 25) point out, "It is not just a minority of children who are classified as overweight and obese who are at risk – obesity is now a disease that can strike anywhere, anytime and we must all be vigilant".

Clearly, in each of the three issues under examination, we see history repeating itself – first, alcohol use in pregnancy was condemned as the cause of foetal *alcohol* spectrum disorders, despite evidence that the role of alcohol in facilitating FASD is likely to be complex and non-linear. A decade later, a remarkably similar discourse started to solidify regarding the impact of secondhand smoke exposure on infants and children; despite evidence of a dose-response relationship between exposure and health impacts, this discourse is also strikingly absolute. Finally, recent media and medical discourses on childhood overnutrition have begun to look all too familiar in their emphasis on the primary role of overnutrition in causing obesity[7] and long-term health impacts, and their emphasis on all fat as equally bad. In this conceptual framework, which we would argue increasingly characterises all three public health movements, harm reduction strategies and other interventions to address social determinants of health become impossible to contemplate.[8]

Extreme Responses

According to Cohen (1972), another central feature of the moral panic is the swift response it generates, disproportionate to the 'actual' danger posed to the subject of the panic. Despite a lack of conclusive evidence in relation to the health impacts of alcohol exposure during pregnancy, childhood exposure to secondhand smoke, and childhood overnutrition, each issue has stimulated the creation of large, well funded and politically powerful movements that have sought to denormalise these behaviours and even enact legal sanctions against those who place their children 'at risk'.

The view of alcohol use amongst pregnant women as a form of child abuse, as well as foetal abuse, has become increasingly dominant over the past two decades, and has enabled legal interventions providing for the confinement of substance-using pregnant women and the apprehension of infants diagnosed with impairments related to maternal substance use (Gomez 1997; Humphries 1999; Boyd 1999; Armstrong 2003). The hegemonic status of this position is demonstrated in a recent bill put before the New Mexico legislature which would "make it a crime to give birth to a child who has Foetal Alcohol Syndrome" (Haussamen 2007). Although such cases demonstrate a willingness to prosecute individual women for 'abusing' their foetuses, they are also indicative of a shift from views of foetal alcohol exposure as a problem of public *health* to a problem of public *order*. With this shift, responses to alcohol use in pregnancy enter a realm in which maternal substance use is not only medicalised but also criminalised.

Similarly, secondhand smoke discourses have increasingly constructed parental smoking as a form of child abuse. For example, the US branch of ASH (Action on Smoking and Health), a nonsmokers' rights organisation, contends that physicians in contact with parents who continue to smoke around their children "… should file a formal complaint

of suspected child abuse (or child neglect or reckless endangerment) the same as they would if a child were regularly being subjected to other toxic and carcinogenic substances like asbestos or benzene" (ASH 2006). Although ASH has been most vocal in framing parental smoking as a legal form of child abuse requiring intervention, their position is a more extreme version of a view that has become increasingly mainstream. Thus, in the key tobacco research journal, *Tobacco Control*, Sweda, Gottlieb and Porfiri (1998: 1-2) write,

> The overall problem [of child exposure to tobacco smoke in the home] is enormous… Additional efforts to reduce children's exposure to tobacco smoke are warranted… Awareness of the seriousness of the problem and voluntary efforts by parents and other adults to address it, are important first steps… Where appeals to good behavior fail, legal remedies become necessary... Part of the answer is educating parents and other adults about the risks ETS poses to children. *As recent legal developments demonstrate, regulation of such conduct in the home may eventually be required* (emphasis ours; see also Ashley and Ferrence 1998).

Recent efforts to enact legislation to ban smoking in cars with children present in Australia (see The Age 2007), Canada (see The Canadian Press 2007) and the USA (see Vergakis 2006) have also often been framed through the lexicon of "child abuse". For example, according to one Canadian advocate of such legislation, "Parents do not have a blanket right to harm their children, and putting a child in a car with smoke is certainly harming the child" (The Canadian Press 2007)

Once again, the newer policies and practices relating to childhood overnutrition appear to be following the same trajectory as the earlier movements on FASD and secondhand smoke. In academic settings, some ethicists have argued that child obesity is a "moral problem" and that "socially coercive" approaches are justifiable in order to stem the "epidemic" (Lotz 2004). Such arguments appear to have been readily taken up in healthcare settings, with childhood obesity increasingly framed as a form of neglect and child abuse in a number of countries, including the USA, Australia and the UK. For example, recent newspaper articles from the UK report a growing number of cases where child protection action has been threatened or taken as a result of childhood obesity (Templeton 2007a, 2007b). An NHS official involved in one such case in the UK is quoted in a news article as saying, "we have got to consider what effect this life-style is having on his [the child in question] health. Child abuse is not just about hitting your children or sexually abusing them, it is also about neglect" (Templeton 2007b). Interestingly, recent research gives scientific 'credibility' to such views, pointing to evidence of an association between maternal self-report of neglectful behaviour and an increased risk of childhood obesity (Whitaker et al. 2007). In this framework obesity becomes a potent signifier for neglect; this is precisely what has occurred in some child abuse prevention guidelines, where obesity is listed as a behavioural indicator of physical neglect (e.g., Child Abuse Prevention Council of Sacramento 2008).

Scapegoating Mothers

An underlying assumption of Cohen's (1971) thesis is that every moral panic has its scapegoat – "The 'folk devil' onto whom public fears and fantasies are projected" (Hunt

1997, 631). As one commentator (Burchill in Hunt 1997, 631) has pointed out, today single mothers "have taken over from 'drug pushers' as society's main folk devil".[9] Thus, while the image of helpless infants and children (and foetuses), at the mercy of their selfish, irresponsible and negligent parents is central to all three movements, mothers, in particular, are singled out as especially culpable. This focus on "the bad mother" is certainly not unique to the three movements under consideration. As Petersen and Lupton (1996) have noted, the positioning of women as producing ill health in their children has long been a central element of public health initiatives – and also biomedicine itself. A perfect example is the medical 'discovery' (c.f. Scheper-Hughes 2002) of Munchausen by Proxy (MBP) syndrome in the 1990s, and the attendant prosecutions of "pathological mothers" who were deemed to be intentionally making their children ill in order to obtain medical sympathy and attention (see Allison and Roberts 1998 for an analysis of MBP syndrome as a moral panic).

The focus on the 'bad mother' is most explicit in discourses on FAS/FASD. For example, a health promotion poster created by the Arizona Department of Family Services depicts a pregnant stomach inscribed with the words "Every year thousands of babies are poisoned in homes just like this one. Please don't drink, smoke or use drugs during your pregnancy". As Armstrong (2003, 17) observes, "constructions of FAS… incorporate deep cultural anxieties over changes in gender roles, particularly notions of motherhood". These anxieties couple with hegemonic notions of good mothering to position mothers who use alcohol or drugs, and most particularly those who use them during pregnancy, as 'unfit' or 'bad', posing simultaneous threats to their children, their communities, and – through repeated references to the economic "burden" imposed by the "lifelong disabilities" of those with FASD – the institutions of the Nation-State (see also Swift 1995; Gomez 1997; Boyd 1999; Humphries 1999; Campbell 2000).

Although less explicit, the focus on the 'bad mother', already central to public health messaging on smoking during pregnancy (see Oaks 2001), has seeped into the discourses surrounding child exposure to secondhand smoke. For example, according to the UK stop-smoking charity Quit, "…women are unintentionally putting their nicotine addiction ahead of the health of their children… Smokers are sacrificing their own health and, *in the case of mums*, the health of their children as well" (BBC News 2007, emphasis ours). Similarly, the US Surgeon General's Report on Secondhand Smoke (USDHHS 2006, 14) states: "the increased risk for lower respiratory illness [amongst children] is greatest from smoking by the mother".[10] Recent tobacco control media campaigns in Canada also emphasise the risk that the mother poses to her child. For example, a recent television advertisement aired as part of Health Canada's "Go Smoke-Free" campaign shows a mother smoking next to an open window and attempting to direct the expelled smoke out the window – although tendrils of smoke enter the room and cling to food, furniture and a teddy bear. A young child then enters the room and takes the teddy bear and the voiceover asserts, "Despite your best intentions, you can never completely eliminate second-hand smoke from your home. Toxic elements linger in the air your family breathes and cling to items they use every day, putting them at risk. Protect your children, make your home smoke-free" (Health Canada 2007).

Mothers are similarly culpable in discourses on childhood overnutrition (Jackson and Mannix 2004). In public health campaigns such as 'We Can! Ways to Enhance Children's Activity and Nutrition' (USDHHS 2008), the health promotion materials are clearly, if implicitly, geared towards mothers. Tips provided emphasise the importance of the parent (read mother) monitoring her own weight as a way of establishing a healthy role model for her children – that the mother, in particular, is targeted becomes explicit in tips such as "Ask your sweetie to bring you fruit or flowers instead of chocolate". The focus on the mother's own eating practices is also evident in scholarly research. For example, in a recent study of maternal obesity and infant feeding, Rising and Lifshitz (2005: 1) found that "Greater maternal body weight and percent body fat were associated with greater infant energy intakes…. These variations in feeding patterns may predispose certain infants to obesity." The focus is now extending to pregnant women, whose eating habits are also suspected of influencing the weight and health of their future offspring (Wu and Suzuki 2006; Catalano and Ehrenberg 2006; Rodriguez *et al.* 2008). Fathers are conspicuously absent in much of this literature on childhood overnutrition. Indeed, several widely publicised studies have argued that childhood obesity is correlated with maternal employment only (Anderson *et al.* 2003; Zhu 2007). According to Zhu (2007), it is the mother's actions adopted in response to time constraints and her struggle to fulfil her dual roles as caregiver and economic provider have partly "caused" growing rates of childhood obesity.

It is important to emphasise that in each of the three issues under examination, not all mothers are the focus of equal attack – particular mothers are constructed as dangerous to the interests of their foetuses and children. As Petersen and Lupton (1996) note, the enforcement of state-imposed regulations tends to be exercised upon the most stigmatised and powerless groups, such as immigrants and the poor or dispossessed. Thus, we find that North American FASD policies tend to single out indigenous women and women of colour as particularly prone to alcohol use in pregnancy, and white middle- and upper-class women's substance use is rarely constructed and responded to as a "social problem" requiring State intervention (Salmon 2004). Moreover, whereas white middle- and upper-class women's substance use is less often seen as 'risky', dangerous, or threatening, the effects of their substance use on the health and wellbeing of their children and communities are more often overlooked or underestimated (Boyd 1999; Humphries 1999; Gomez 1999).

Likewise, the discourses on the harmful effects of smoking around children often centre on working class, single mothers.[11] Interestingly, a conceptual leap is often made from maternal smoking to the smoking of single-mothers even in studies which do not include evidence of a purported link. For example, according to Ashley and Ferrence (1998, 62), "Maternal smoking is a particularly important determinant of exposure in infants and young children, and children in *single-parent families may be at higher risk than children in two-parent families*" (Ashley and Ferrence 1998, 62, emphasis ours). In a similar vein, Birney, Hardie and Crowley (2006, 225, emphasis ours) write, "If smoking mothers significantly impact their children's health, *then the surge in single-mother families must likewise impact on children's health*".

Finally, discourses on childhood obesity and overnutrition are also loaded with racist and classist assumptions, as the cases of fat children removed from their homes inevitably involve people of colour and the poor (LeBesco 2004, 63-64). For example, in one highly publicised US case, the three-year-old child of a Hispanic couple was recommended for foster care because "cultural barriers" inhibited her parents from understanding the "threat" their feeding habits posed to their daughter (see LeBesco 2004, 63-64 for an analysis of this case). In another highly publicised UK case, the boy at the centre of the abuse and neglect claims was the child of a single mother, who bore the brunt of public criticism about her son's weight (CBS 2007). As LeBesco (2004, 63) notes, "the stigma of fat clusters around the stigma of poverty and of nonwhiteness with the effect of depriving individuals of their rights as citizens". Recent studies have provided a veneer of scientific legitimacy to such assumptions, with research findings asserting that African American[12] (West *et al.* 2008) and Latina mothers (Bjerklie 2006) are particularly likely to underestimate the weight of their offspring. Other studies on childhood obesity and low income mothers suggest that such women "promote" obesity by "interfering with their children's ability to regulate their own food intake" (Baughcum *et al.* 2001, 1010), or by failing to recognise that their children are overweight (Baughcum *et al.* 2001).

In cases where the children of poor women and women of colour have been targeted for intervention, the focus tends to remain on the individual mother and her responsibility and obligation to protect her foetus and children from harm. However, "this emphasis on individual responsibility may deny broader social responsibilities for health and disease" (Armstrong 2003, 213), and obscures the role of structural and environmental factors which constrain the abilities of individual women and families to "make good choices" to protect their children's health. As feminist critiques of health promotion have noted, health promotion campaigns often give mothers "responsibility without power" (Daykin and Naidoo 1995, 63). Thus, critics of FASD messaging have pointed out that many pregnant women who drink heavily are the victims of violence and domestic abuse; they do not just 'take' risks voluntarily, "they live lives at risk" (Armstrong 2003, 217). Studies of smoking amongst low income women (e.g. Graham 1987; Oakley 1989) have pointed to the problems with telling low income mothers not to smoke whilst failing to acknowledge the pressures that lead to smoking in the first place (Daykin and Naidoo 1995). Finally, studies have shown that a healthy diet is simply beyond the means of many low income mothers (Cole-Hamilton 1987; Daykin and Naidoo 1995).

As critiques of health promotion have pointed out, ideologies of 'healthism' are marked by a neo-liberal emphasis on the individual responsibility for health (Petersen 1996; Petersen, 1997; Petersen and Lupton 1996) and the political economy that produces 'risk' behaviours and ill health in the first place (e.g. poverty, bad housing conditions, industrial pollution, racism, etc) is rendered invisible. Moreover, little attention is paid to what Robert Castel (1991) has labelled the "iatrogenic aspects of prevention" whereby the potential harms caused by State-sanctioned interventions that entail child 'protection' and removal, may be substantially greater than the harms caused by the 'risk' behaviour in the first place.

Conclusion

In this paper, we have argued that the public health movements that have arisen in response to the emergent public health 'crises' of foetal and childhood exposure to alcohol, secondhand smoke, and overnutrition embody key features of a moral panic. We have tried to show that alarmist statements about these issues need to be treated with caution, as the evidence supporting each of these three 'risks' suggests a complex as opposed to linear relationship between the environmental agent in question and its health outcome. Despite the inconclusive state of the available evidence, each of these discourses calls for swift (and disproportionate) responses that overstate the current knowledge base. Indeed, we have argued that each of these movements employ remarkably similar discursive and rhetorical strategies that support increasingly mainstream calls for invasive interventions and legal sanctions.

While all mothers are caught to some degree in the web of punitive discourses woven by these movements, our analysis suggests that women of colour, single mothers, and women living in poverty have been most notably singled out as posing 'risks' and 'dangers' to their offspring. Thus, the cumulative results of these public health movements appear to support the increased intrusion of the State into the homes of women who are already subject to a strong degree of marginalisation and surveillance. In so doing, these movements fail to adequately consider the structural and contextual factors which create and amplify these harms and produce ill health in women, children and families, as well as the potential harms which may arise from punitive State interventions to eliminate these public health 'threats'.

We do not intend to suggest that these themes appear across all of the materials written in on the three issues. There is, of course, considerable diversity of perspective on foetal alcohol exposure, and children's exposure to secondhand smoke and fatty and 'unhealthy' foods, with opinions and approaches ranging from the highly critical to the overtly moralistic. However, we have demonstrated that these assumptions *are* present (either explicitly or implicitly) across a wide range of materials produced in popular, policy and research settings. Therefore, while our analysis does not represent the final word on this topic, we hope it paves the way for more comprehensive and systematic comparisons and examinations of these three issues.

Notes

[1] Although the new public health recognises the social and environmental impacts on health, scholars have noted that central to this movement is an emphasis on the self management of risk (Petersen 1997, see also Petersen and Lupton 1997), requiring individuals to constantly monitor inputs and outputs (Petersen 1997). As Nettleton (1997): 208) writes, "…there is the suggestion that it is possible for 'you', that is the individual, to be in control over his or her destiny".

[2] Salmon (2004) has previously argued that FASD policies focusing on Aboriginal mothers take the form of a moral panic and Campos *et al.* (2006) have also recently argued that the 'obesity epidemic' can be interpreted as a moral panic.

[3] From the front page of the National Organisation on Fetal Alcohol Syndrome (NOFAS 2004).
[4] Indeed, the National Organisation on Foetal Alcohol Syndrome (NOFAS 2004) counsels pregnancy women that: "Over-the-counter cough and cold remedies may contain alcohol or other ingredients that should be avoided during pregnancy", and suggests to women concerned with preventing their fetus from developing FASD that "It is better to take all precautions".
[5] However, given the growing polarisation of the tobacco control movement and the tendency to conflate the goals of tobacco control and tobacco research (see Mair and Kierans 2007 for a discussion of this issue), this literature remains quite marginal and its authors are invariably dismissed as lackeys of the tobacco industry.
[6] And even there, the evidence is stronger for lung cancer than heart disease (Enstrom and Kabat 2003).
[7] We would argue that while physical inactivity is also considered to be a secondary cause of childhood obesity (and obesity more generally), the primary emphasis has always been on overeating as the primary factor. Indeed, the word obese itself comes from the Latin root 'obedere', which means to overeat.
[8] The unwillingness to contemplate harm reduction strategies is particularly apparent in the tobacco control movement. Although the mother in the Health Canada commercial is actually engaging in a valid form of harm reduction by smoking out of a window and thereby minimising her children's exposure to secondhand smoke, this action is represented as completed invalid. However, as Emmons et al. (1998) point out, for low income mothers who smoke, maintaining a smoke-free home entails a choice between either taking children outside into a potentially unsafe environment or leaving the children alone while they go outdoors to smoke – itself a potential basis for a child neglect and endangerment claim. They are essentially placed in a 'no win' situation. As Daykin and Naidoo (1995) note, such health promotion messages give low income women the responsibility for their children's health in a situation where they do not necessarily have the power to make changes.
[9] Interestingly, this imagery transforms the single mother into a drug pusher, thus combining these two very powerful 'folk devils'.
[10] Although systematic reviews of the evidence do support the idea that maternal smoking has a larger health impact on the health of offspring, paternal smoking has also been significantly correlated with health effects (e.g. Cook and Strachan 1997).
[11] While these researchers would likely point to the high incidence of smoking amongst single mothers as justification for this conceptual leap, in each case, they have not actually drawn on any evidence, but have simply assumed a connection.
[12] Although the study claims to be about 'parents', the overwhelming majority of parents in the study are mothers.

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