PRACTICAL THEOLOGY, Vol. 7 No. 2, June, 2014, 125–143

Eucharistic Eating, Family Meals and the Health of Adolescent Girls: A Canadian Study

VALERIE MICHAELSON
The School of Religion, Queen's University, Kingston, Ontario, Canada

TRACY J. TROTHEN
The School of Religion, Queen's University, Kingston, Ontario, Canada

COLLEEN DAVISON
Department of Department of Public Health Sciences, Queen's University, Kingston, Ontario, Canada

FRANK J. ELGAR
Institute for Health and Social Policy, McGill University, Montreal, Canada

WILLIAM PICKETT
Department of Public Health Sciences, Queen's University, Kingston, Ontario, Canada

This national study of adolescent Canadian girls focuses on church or religious group involvement as a potential determinant of health, as well as participation in family meals as a spiritual practice with potential health benefits. Current church involvement did not relate to improved emotional health, suggesting the need for more integrative messages and practices. Findings confirmed the strong protective relationship between regular participation in the family meal and health benefits among girls. Drawing on health research and theological reflection, we argue that regular participation in the family meal is a potentially powerful practice that could benefit adolescent girls. By helping families to understand the importance of the family meal as a spiritual practice, and by providing practical, theologically

DOI 10.1179/1756073X14Z.00000000036

rich tools for practicing the family meal in our busy culture, these findings have the potential to contribute to the overall holistic health of young people, both in and outside the church.

KEYWORDS Determinants of Health, Emotional Health, Family Meals, Girls, Physical Health

Introduction

Church involvement, as a means of being in a relationship with a creative and loving God, humanity, and the world, has the potential to positively transform the lives of young people. While Sunday morning worship services and church youth groups have meaningful roles to play in the faith development of young people, a disproportionately large amount of time tends to be devoted to these activities. Often in church ministries, less attention is paid to nurturing young people in contexts in which they spend most of their time, most notably the family home. These phenomena are connected to what theologian Eric Stoddart describes as our "obsession with Word and teaching ministry" (Littlejohn, 2011). While word and teaching are important in the faith development of children, they are not sufficient in themselves.

Church ministries could offer simple tools and strategies to be used outside of the church context that could improve children's health and well-being. One powerful example of a family-based practice that is known to relate to several positive health outcomes is regular engagement in family meals. In children these outcomes include more nutritious eating behaviours, indicators of improved physical health, improved cognitive, emotional and social competencies, as well as improved psychological well-being, prosocial behaviours, and life satisfaction (Weinstein, 2005; Woodruff and Hanning, 2009; Elgar *et al.*, 2013). Family meals facilitate parental involvement and parental monitoring in their children's lives, parenting behaviours that contribute to social competence and mental health in adolescence (Baumrind, 1991). Regular family meals also provide parents with opportunities to engage young people in open and respectful ways that contribute to the development of coping skills and positive health behaviours in their children. When adolescents are enabled to express their concerns and feel valued, research shows that these family dynamics support adolescent mental health (Repetti *et al.*, 2002).

Gordon Smith refers to eating as a "spiritual practice" (Smith 2005, 9) and Albert Borgmann argues that "preparing and sharing a meal together constitutes a focal practice that has the power to reorient the life of a family" (Wood, 2003: 23). Meals can be viewed as a simple but important ritual. Simon Robinson points to such rituals as anchors for "continued identity" that encourage the development of "shared meaning" and "shared attention." The ritual of the family meal, he posits, "can sum up the embodiment of personal or group spirituality, as meals together might do for a family. It can also provide part of any continuity over time, acting as a reminder of purpose and hope" (Robinson, 2007: 49). The family meal can thus be considered both a secular and "spiritual practice" that the Christian church

could encourage more intentionally. As a practice that becomes part of routine ministry, it could potentially have positive, tangible and far-reaching effects on a broad range of health outcomes in children.

Study of such issues also fosters a conversation between theological and health researchers. From a Christian theological perspective, communal eating is part of an appropriate response to the life and teachings of Jesus, and consistent with broader theological themes. From a health promotion perspective, engagement in family meals has demonstrated health benefits such as those associated with improved communication between parents and young people.

Why Adolescent Girls?

Adolescent girls are vulnerable to adverse health trajectories and their consequences. Common concerns about their health include aspects of physical health (overt risk behaviours such as substance misuse) (Schnike *et al.*, 2008) and emotional well-being (particularly body image) (Feldman *et al.*, 1986). While church involvement is known to relate to improved prosocial behaviours and less risk-taking (Michaelson *et al.*, 2013), it is often lacking in terms of a more integrative, far reaching protective effect that would foster emotional well-being. We hypothesized that if church and religious groups effectively nurture health among adolescent girls, then those who engage more in church or religious activities would report better physical and emotional health as compared to disengaged girls. Further, we expected that regardless of religious group involvement, participation in family meals would positively relate to body image and emotional health and negatively relate to participation in risk behaviours. In bridging these conversations in health and theological disciplines, our goal was to contribute to the well-being of adolescents, including those involved in Christian churches, through suggesting the development of church-based resources connected to participation in the family meal.

Methods

Sample

The Health Behaviour in School-Aged Children (HBSC) study aims to increase understanding of health and its determinants in populations of young people (Currie *et al.*, 2012). It involves written health surveys conducted with students in classroom settings, with a focus on early adolescence (ages 11–15). Cycle 6 of the Canadian HBSC was conducted in 2009–10 (Freeman *et al.*, 2011). It involved participants in 8 of 10 Canadian provinces and all three Canadian territories. The national sample was stratified by province/territory, type of school board (public vs. separate), urban–rural geographic status, school population size, and language of instruction (French vs. English) with standardized population weights generated to account for over- and under-sampling in some provinces and territories, and the above stratification criteria.

Inclusion criteria for the current analysis were: (1) being a girl; (2) participation in the survey; (3) valid responses to all core HBSC items required for analysis; (4)

provision of basic demographic information. Children from private schools, home school situations, native reserves, street youth, incarcerated youth, and youth not providing informed consent (explicit or implicit, as per local school board customs) were excluded from the Canadian HBSC.

Physical Health Outcomes

Each participating girl was asked about her engagement in specific physical health behaviours. These included: *binge drinking*, defined as "at least monthly" consumption of four or more drinks on one occasion; *daily smoking* of cigarettes; *use of cannabis*, defined as three or more times during the child's lifetime*; ever having engaged in sexual intercourse*; and *frequent physical fights*, defined as two or more in the past 12 months. The binge drinking, cannabis, and sexual intercourse items were only asked of older (e.g., grades 9–10) girls.

Emotional Health Outcomes

Each girl was asked about their perceptions of body image (the negative responses to the question "my body is: *much too thin, a bit too thin, about the right size, a bit too fat, much too fat*"); and indicators of negative internal feelings (Likert-like scales describing: "loneliness," "wishing they were someone else," and "feeling depressed or low").

Participation in Family Dinners

Each girl was asked "on average, how many times per week does your family sit down at the table together for dinner/supper?" (response options: *zero through seven times*). The term "family" was left up to the participants to interpret.

Participation in Church or Religious Groups

The girls were asked if they regularly participated (*yes* or *no*) in clubs or organizations that were organized around specific activities. One of these was participation in "church or religious groups".

Socio-demographic Factors

Analyses were restricted to girls. We also considered grade level (*6–8 vs. 9–10*), years of residence in Canada (*born in Canada, 1 to 5 years, >5 years*), subjective socio-economic status (SES) as measured by the question "how well off do you think your family is? (five response options: "*very well off*" through to "*not at all well off*"; later categorized into three categories), and family structure (*two-parent vs. all other family structures)* as descriptors and model covariates.

Adult Communication

Each girl was asked "How easy is it for you to talk to the following persons (*categories included mother, father*) about things that really bother you? " (five response options: *"very easy," "easy," "difficult," "very difficult," "don't have or see this person"*).

Analysis

We first profiled the study population demographically. Next, relationships between participation or not in a church or religious group and each potential health outcome were described. Chi-square tests for association were used in these analyses. Prevalence estimates were weighted proportional to their respective standardized sampling fractions. We then conducted a series of bivariate multilevel logistic regression analyses using the SAS Procedure PROC GLIMMIX, with students nested within schools, to study the potential influence of family meal practices as possible determinants of each different physical and emotional health outcome. We also explored the consistency of the relationships between family meals and each of the health outcomes by whether or not the girls were involved in church or religious groups. We did this through stratified analyses and also through inclusion of two-way interaction terms in our models. We then extended these models by simultaneously controlling for socio-demographic covariates, then also exploring the role(s) of communication with parent(s) as a potential mediator. Odds ratios and associated 95% confidence intervals were estimated with inflation of standard errors used to account for the clustered nature of the sample. Given the size of the available sample (n=12,576 overall), all analyses involving the full sample were strongly (>90%) powered to detect socially meaningful differences in effect (defined as a protective OR of 0·90 or lower).

Results

A weighted sample of 12,576 girls was available, and of these 2,177 were involved in a church or religious group. Demographic characteristics of involved and uninvolved groups are described in Table 1. Majorities of both groups were in grades 6–8, reported "above average" SES, were born in Canada, came from a two-parent family structure, and had dinner with their family at least five out of seven days per week.

Table 2 describes relationships between involvement in a church or religious group and physical and emotional health outcomes, stratified by grade level. Grade 9–10 girls involved in these groups reported lower levels of risk-taking behaviour for four out of five risk behaviours, but higher prevalence values for frequent fighting. Girls in grades 6–8 who were also involved in these groups reported lower levels of smoking, but equivalent levels of fighting. For the emotional health outcomes, there was no relation to church/religious group involvement.

Relationships between reported consumption of family meals and the physical health outcomes are described in Table 3. Observed trends were strong, consistent and statistically significant, with lower relative odds of risk-taking associated with increased frequency of eating dinner together as a family. This trend was observed consistently in girls involved in church/religious groups and those not involved in such groups. Similar patterns were reported by participating girls for the negative emotional health outcomes (Table 4). One exception to this was for a negative body image of being "a bit too thin," where if anything, the relative odds of this outcome increased with more frequent consumption of family meals.

The consistency of relationships between family meals and the health outcomes was then examined by church or religious group involvement. For the physical health outcomes, a stronger protective effect for family meals ($p<0.05$) was observed for binge drinking among church/religious involved girls as compared to uninvolved girls (Table 3). Similar protective effects of family meals were observed on all other physical outcomes between church/religious involved and uninvolved girls. Relationships between family meals and the body image items were the only emotional health outcome where we found a slight modification of effects by church or religious group involvement ($p<0.05$; Table 4). In general, these effects were consistent for church involved and non-involved girls. These relationships are further illustrated in Figures 1 and 2.

TABLE 1

DESCRIPTION OF STUDY POPULATION BY INVOLVEMENT OR NOT IN CHURCH OR RELIGIOUS GROUP: ADOLESCENT GIRL PARTICIPANTS (N=12,576) 2010 CANADIAN HBSC STUDY

Variable	Not Involved (n=10,339)		Involved (n=2,177)		Total (12,576)	
	No.	(%)	No.	(%)	No.	(%)
Grade						
6 to 8	6050	(58·2)	1408	(64·7)	7458	(59·3)
9 to 10	4348	(41·8)	768	(35·3)	5116	(40·7)
Socio-economic status						
Below average	999	(10·0)	214	(10·1)	1213	(10·0)
Average	3532	(35·3)	735	(34·6)	4267	(35·2)
Above average	5467	(54·7)	1173	(55·3)	6640	(54·8)
Immigration status						
Born in Canada	7956	(77·2)	1505	(69·8)	9461	(75·9)
New immigrant	367	(3·6)	139	(6·4)	506	(4·1)
Less recent immigrant	1986	(19·3)	512	(23·7)	2498	(20·0)
Family structure						
Two parent family	6748	(65·4)	1572	(72·7)	8320	(66·7)
One parent family	3570	(34·6)	590	(27·3)	4160	(33·3)
Family dinners eaten together per week						
Mean (SD)	*4·5*	*(2·4)*	*4·8*	*(2·3)*	*4·6*	*(2·4)*
Zero	992	(9·6)	161	(7·5)	1153	(9·3)
One	732	(7·1)	128	(5·9)	860	(6·9)
Two	785	(7·6)	132	(6·1)	917	(7·4)
Three	844	(8·2)	157	(7·3)	1001	(8·0)
Four	914	(8·9)	197	(9·1)	1111	(8·9)
Five	1431	(13·9)	297	(13·7)	1728	(13·9)
Six	1347	(13·1)	307	(14·2)	1654	(13·3)
Seven	3248	(31·6)	782	(36·2)	4030	(32·4)

The final analysis described in Table 5 showed that relationships between family meals and all health outcomes remained after adjusting for multiple covariates. Further control for variables describing ease of communication with parent(s) generally caused the odds ratios for the family meals items to become closer to 1·0, supportive of the possibility that such communication is one mechanism that may underlie any protective effects.

Discussion

Findings from this study of Canadian girls suggest that church involvement relates to a reduction in overt risk behaviours such as binge drinking, daily smoking, regular cannabis use and sexual intercourse. However, church involvement did not associate with protective effects for emotional health outcomes such as depression, body image, and inner feelings. For the church, this finding should be disconcerting. It suggests that the church may contribute to a compartmentalized understanding of the Christian life that emphasizes the following of a moral behavioural code while neglecting to embrace a whole-person relational

TABLE 2

PERCENTAGE[1] OF ADOLESCENT GIRLS REPORTING *NEGATIVE PHYSICAL* AND *NEGATIVE EMOTIONAL HEALTH OUTCOMES* BY INVOLVEMENT OR NOT IN A CHURCH OR RELIGIOUS GROUP. 2010 HBSC CANADIAN SURVEY

Health Outcomes	Grades 6–8					Grades 9–10				
	Involved		Not Involved		P	Involved		Not Involved		P
	No.	(%)	No.	(%)		No.	(%)	No.	(%)	
Total girls responding	1408	(100)	6050	(100)		768	(100)	4348	(100)	
Physical health outcome										
Binge drinking	–	(–)	–	(–)	–	1102	(15·3)	115	(26·0)	<.0001
Daily smoking	12	(0·9)	111	(1·9)	.007	19	(2·5)	272	(6·3)	<.0001
Regular cannabis use	–	(–)	–	(–)	–	67	(8·8)	844	(19·6)	<.0001
Ever sexual intercourse	–	(–)	–	(–)	–	76	(11·7)	1027	(26·0)	<.0001
Frequent fighting	155	(11·2)	679	(11·5)	.81	98	(12·8)	436	(10·1)	.03
Emotional health outcome										
Negative body image										
Much too thin	31	(2·2)	132	(2·2)	1·00	13	(1·7)	47	(1·1)	.15
A bit too thin	126	(9·1)	633	(10·8	.08	47	(6·2)	336	(7·9)	.12
A bit too fat	377	(27·4)	1434	(24·4)	.02	284	(37·3)	1392	(32·6)	.01
Much too fat	53	(3·8)	218	(3·7)	.81	31	(4·1)	210	(4·9)	.36
Loneliness	353	(23·1)	1316	(23·3)	.87	237	(27·2)	1106	(27·1)	.97
Wishing someone else	477	(31·2)	1881	(33·2)	.15	283	(32·6)	1304	(32·0)	.72
Depressed weekly	229	(16·6)	1063	(18·0)	.23	160	(21·4)	944	(21·0)	.74

[1]small numbers of girls did not respond to each of the items; denominators therefore vary slightly between different comparisons.
– collected only from grade 9–10.

TABLE 3

PERCENTAGE OF ADOLESCENT GIRLS REPORTING *NEGATIVE PHYSICAL HEALTH OUTCOMES* BY NUMBER OF FAMILY DINNER EATEN TOGETHER IN A TYPICAL WEEK AND INVOLVEMENT OR NOT IN A CHURCH OR RELIGIOUS GROUP. 2010 HBSC CANADIAN SURVEY

Sample: Physical health outcome	% Reporting Health Outcome by Number of Family Dinners Together								Trend	
	0	1	2	3	4	5	6	7	OR[1] (95% CI)	P (trend)
Overall sample										
Binge drinking (n=5,033)	33	30	27	29	30	27	19	17	0·88 (0·86 to 0·91)	<.0001
Daily smoking (n=12,524)	8	5	4	4	2	4	1	2	0·83 (0·80 to 0·87)	<.0001
Regular cannabis use (n=5,105)	28	26	18	21	20	20	12	11	0·86 (0·83 to 0·88)	<.0001
Ever sexual intercourse (n=4,662)	30	30	22	28	24	24	16	22	0·90 (0·87 to 0·93)	<.0001
Frequent fighting (n=12,456)	19	15	12	11	9	11	10	9	0·91 (0·88 to 0·93)	<.0001
Involved in church or religious group										
Binge drinking (n=751)	21	27	22	14	29	12	9	7	0·80 (0·76 to 0·84)	<.0001
Daily smoking (n=2,140)	5	5	0	1	1	1	0	1	0·80 (0·69 to 0·92)	.002
Regular cannabis use (n=759)	19	14	9	7	12	5	6	6	0·79 (0·70 to 0·89)	<.0001
Ever sexual intercourse (n=655)	23	29	8	7	12	11	7	10	0·80 (0·72 to 0·90)	.0002
Frequent fighting (n=2,130)	20	18	7	16	9	10	11	11	0·91 (0·86 to 0·97)	.002
Not involved in church or religious group										
Binge drinking (n=4,208)	35	30	28	30	30	28	21	19	0·89 (0·86 to 0·92)	<.0001
Daily smoking (n=10,183)	9	4	4	4	3	4	2	3	0·84 (0·81 to 0·88)	<.0001
Regular cannabis use (n=4,272)	29	27	19	24	22	22	14	12	0·86 (0·83 to 0·89)	<.0001
Ever sexual intercourse (n=3,933)	30	31	25	31	28	27	19	23	0·91 (0·88 to 0·94)	<.0001
Frequent fighting (n=10,129)	18	15	12	10	10	11	9	9	0·90 (0·88 to 0·93)	<.0001

[1]OR: change in relative odds of health outcome for each additional family dinner eaten per week.

TABLE 4

PERCENTAGE OF ADOLESCENT GIRLS REPORTING NEGATIVE *EMOTIONAL HEALTH OUTCOMES* BY NUMBER OF FAMILY DINNERS EATEN TOGETHER IN A TYPICAL WEEK AND INVOLVEMENT OR NOT IN A CHURCH OR RELIGIOUS GROUP. 2010 HBSC CANADIAN SURVEY

Sample: Emotional health outcome	% Reporting Health Outcome by Number of Family Dinners Together								Trend	
	0	1	2	3	4	5	6	7	OR[1] (95% CI)	P (trend)
Overall sample										
Negative body image (n=12,182)										
Much too thin	2	2	2	2	2	2	1	2	0·95 (0·90 to 1·00)	<.0001
A bit too thin	8	10	8	8	9	8	9	11	1·05 (1·03 to 1·08)	.05
A bit too fat	38	34	32	28	28	30	27	24	0·94 (0·92 to 0·95)	<.0001
Much too fat	9	6	5	4	4	4	4	3	0·86 (0·83 to 0·89)	<.0001
Loneliness (n=12,235)	40	34	30	23	21	20	20	20	0·87 (0·86 to 0·89)	<.0001
Wishing someone else (n=12,275)	41	39	35	37	31	30	27	27	0·91 (0·90 to 0·93)	<.0001
Depressed weekly (n=12,207)	37	27	21	20	19	17	15	15	0·87 (0·86 to 0·89)	<.0001
Involved in church or religious group										
Negative body image (n=2,124)										
Much too thin	1	1	2	5	1	5	1	2	0·97 (0·85 to 1·11)	.67
A bit too thin	11	9	6	7	11	6	9	8	0·98 (0·92 to 1·05)	.61
A bit too fat	35	36	34	23	31	33	31	29	0·97 (0·93 to 1·01)	.12
Much too fat	2	7	5	6	4	4	5	3	0·79 (0·72 to 0·87)	<.0001
Loneliness (n=2,135)	44	28	28	24	21	18	18	18	0·85 (0·82 to 0·89)	<.0001
Wishing someone else (n=2,136)	41	40	31	44	29	26	26	24	0·88 (0·85 to 0·92)	<.0001
Depressed weekly (n=2,111)	42	20	24	23	20	17	8	16	0·84 (0·80 to 0·88)	<.0001
Not involved in church or religious group										
Negative body image (n=10,056)										
Much too thin	3	3	2	1	2	2	1	2	0·94 (0·89 to 1·00)	.06
A bit too thin	7	10	8	8	8	9	9	12	1·07 (1·04 to 1·10)	<.0001
A bit too fat	38	34	32	29	27	29	26	23	0·92 (0·91 to 0·94)	<.0001
Much too fat	9	5	5	4	4	4	4	3	0·88 (0·85 to 0·91)	<.0001
Loneliness (n=10,100)	40	35	30	23	21	20	20	20	0·87 (0·85 to 0·89)	<.0001
Wishing someone else (n=10,139)	40	39	35	36	32	31	28	27	0·92 (0·90 to 0·93)	<.0001
Depressed weekly (n=10,096)	36	28	20	20	19	17	16	15	0·88 (0·86 to 0·90)	<.0001

[1]OR: change in relative odds of health outcome for each additional family dinner eaten per week.

experience of God that calls forth the engagement of every part of our lives, including emotional well-being. This in turn suggests the need for a more integrative message and practice from church-based ministries.

Second, our findings demonstrated a clear and consistent protective relationship between girls' participation in family meals and *both* lower participation in risk behaviours and better emotional well-being. Such effects were observed consistently in both church involved and uninvolved adolescent girls. Hence, the family meal can be viewed as a positive norm in families inside and outside of the church, and encouragement of this practice should be considered as part of a novel approach to church ministry that has the potential to make a positive and powerful contribution to girls, including to their overall health.

Theological Reflections on Family Meals

Christian theology is constructed via interpretations of the biblical source, theological and church tradition, reason and experience. How these sources are understood and used is the subject of much debate. For the purposes of this article, we will consider some scriptural references to meals and the tradition of the Eucharist. Due to the brevity of this article, only two of these sources will be explored as they directly address the consumption of meals and are relevant to most Christian traditions. Throughout this brief discussion the theme of relational justice is pronounced. This theological reflection is meant to serve as a modest bridge between ecclesial practice and the findings of our study.

Throughout the biblical narrative, eating a meal in community has special significance. Some examples include Psalm 34:8, in which eating is an invitation to experience God's goodness, and Psalm 104, which helps us to see food, and by extension meals, as gifts from God, tangible examples of God's provision and care for humanity. Other parts of the biblical narrative make clear the connection between eating and issues of justice such as the protection of vulnerable populations. The biblical source connects human flourishing to participation in feeding the hungry and satisfying the needs of the vulnerable (Isa. 58). These portrayals of justice and food can help illuminate the significance of family meals for our study population of adolescent girls.

The Jesus stories continue this theme. Relational justice issues such as exclusion, degradation, rejection, oppression and violence are connected often to meals. Scripture includes accounts of Jesus: eating with strangers and outcasts (Lk. 14:12–14); ensuring that the most vulnerable in society were cared for and fed (Matt. 25:34–36); challenging marginalizing social norms around the place of women (Lk. 10:38–42); celebrating extravagantly (John 2:1–11); demonstrating the value of fasting (Matt. 4:1–11); and the overall cultivating of hospitality and inclusivity. Virgilio Elizondo writes: "By freely eating with everyone, [Jesus] breaks and challenges all the social taboos that keep people apart" (Elizondo, 2000: 83). These acts give life and provide a context in which life and health can flourish.

Theologian Norman Wirzba has authored an important recent theological and ethical examination of communal eating. In his book *Food and Faith,* Wirzba

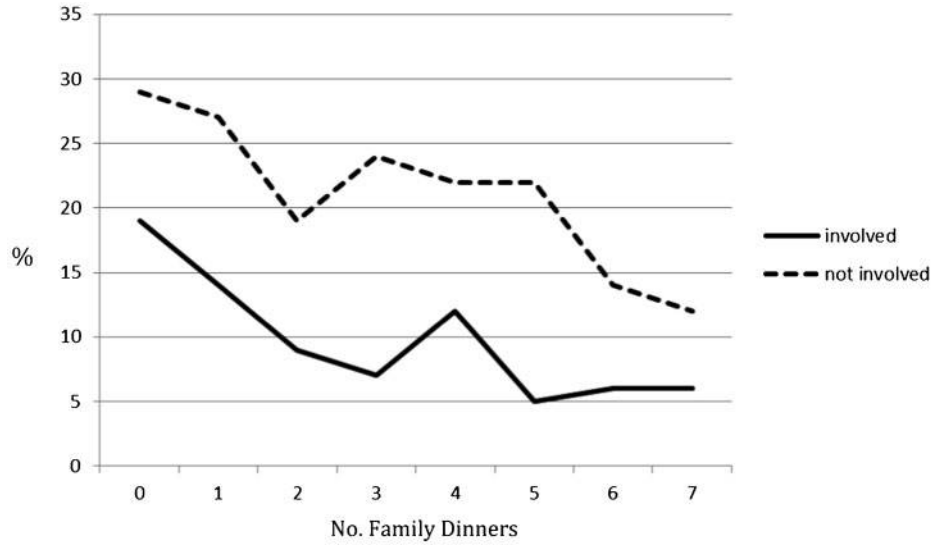

FIGURE 1 Percentage of adolescent girls reporting regular cannabis use by number of family dinners (0 to 7) eaten in a typical week and involvement in church or religious groups.

argues that while shared meals make up the heart of many biblical encounters, it is in the Eucharistic meal that "we receive the nurture and training we need to become people who participate in his healing and reconciling ways with the world" (Wirzba, 2011: 149). Wirzba further argues that the ritualized character of the Eucharist can cause us to forget the early church evidence that this supper (rooted in the Passover celebration) was a coming together of Jesus' followers to

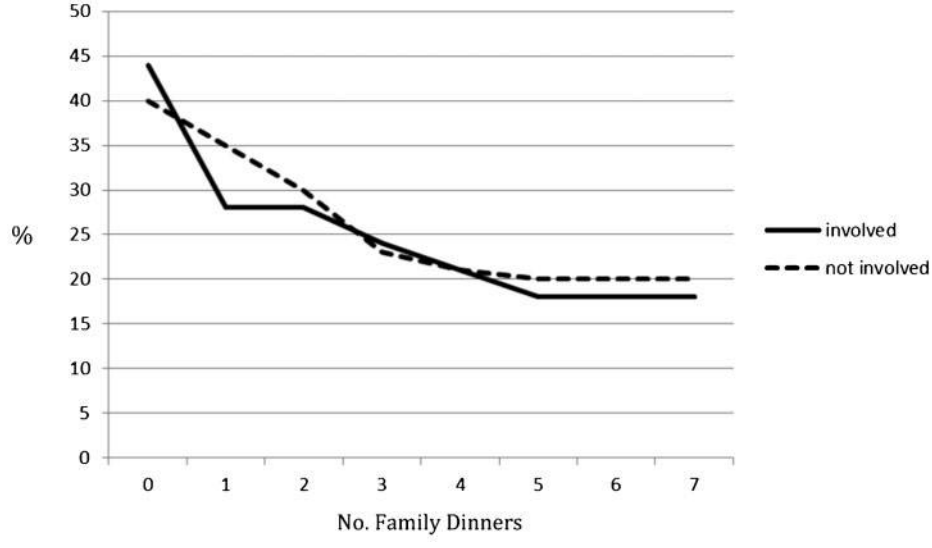

FIGURE 2 Percentage of adolescent girls reporting loneliness by number of family dinners (0 to 7) eaten in a typical week and involvement in church or religious groups.

TABLE 5

RESULTS OF MULTIPLE LOGISTIC REGRESSION ANALYSIS EXAMINING NUMBER OF FAMILY DINNERS EATEN TOGETHER (RANGE 0 THROUGH 7) AS A PREDICTOR OF PHYSICAL THEN EMOTIONAL OUTCOMES IN ADOLESCENT GIRLS, AND THE ROLE OF COMMUNICATION WITH MOTHERS AND/OR FATHERS AS A POTENTIAL MEDIATOR, 2010 CANADIAN HBSC SURVEY.

Health outcome being predicted	Relative odds (OR) and 95% confidence interval (CI) per unit increase in family dinners per week					
	Model 1: Bivariate		Model 2: Adjusted[A]		Model 3: Mediation[B]	
	OR[1]	(95% CI)	OR[1]	(95% CI)	OR[1]	(95% CI)
Physical health outcomes						
Binge drinking[A]	0·88	(0·86 to 0·91)	0·90	(0·88 to 0·93)	0·91	(0·88 to 0·94)
Daily smoking	0·83	(0·80 to 0·87)	0·86	(0·82 to 0·90)	0·86	(0·82 to 0·90)
Regular cannabis use	0·86	(0·83 to 0·88)	0·89	(0·87 to 0·93)	0·91	(0·88 to 0·94)
Sexual intercourse	0·90	(0·87 to 0·93)	0·93	(0·90 to 0·96)	0·93	(0·90 to 0·96)
Frequent fighting	0·91	(0·88 to 0·93)	0·92	(0·90 to 0·95)	0·94	(0·92 to 0·97)
Emotional health outcomes						
Negative body image[A]						
Much too thin	0·95	(0·90 to 1·00)	0·95	(0·90 to 1·00)	0·95	(0·89 to 1·01)
A bit too thin	1·05	(1·03 to 1·08)	1·03	(1·00 to 1·06)	1·03	(1·00 to 1·06)
A bit too fat	0·94	(0·92 to 0·95)	0·96	(0·94 to 0·98)	0·97	(0·96 to 0·99)
Much too fat	0·86	(0·83 to 0·89)	0·90	(0·87 to 0·94)	0·92	(0·88 to 0·96)
Loneliness	0·87	(0·86 to 0·89)	0·90	(0·88 to 0·91)	0·92	(0·90 to 0·93)
Wishing they were someone else	0·91	(0·90 to 0·93)	0·93	(0·92 to 0·95)	0·96	(0·94 to 0·97)
Depressed or feeling low	0·87	(0·86 to 0·89)	0·91	(0·89 to 0·92)	0·94	(0·92 to 0·96)

[A]Adjusted for: age, socio-economic status, immigration status, family structure.
[B]Adjusted for: all covariates in model 2, plus communication with parent(s).
[1]OR: change in relative odds of health outcome for each additional family dinner eaten per week.

eat an ordinary meal, and through this act of communal eating to obtain the strength and sustenance needed to bear witness to Christ's transformative, reconciling and healing way of engaging with this world. By beginning this meal with washing his disciples' feet, Jesus emphasizes the potential of the meal to be a physical embodiment of a self-giving love that serves others. From a theological perspective, "the eucharist is one of the clearest examples of the traditional union of spirit and matter" (Wirzba, 2011: 7). The human person is a holistic creation in which there can be no clear division between spirit and body.

Perhaps one of the most important points here is that the meal Jesus shared with his disciples was about the goodness of eating food in family community. The disciples were, in many ways, family for Jesus. The biblical account does not describe an elaborate ritual of laying out the cutlery just so or folding the napkins in the proper manner. Rather it was about nourishing the spirit with relationship and the body with food. While eating practices can lead to isolation, negative relationships with our bodies and anxiety, a Eucharistic model of eating can transform eating practices. Such a model is profoundly relational, and thereby raises a host of ethical questions about eating communally and the health and well-being of each person involved.

The Family Meal as a Theologically Sound Health Intervention

Family dinners can also be seen as a signature of a wide range of social and spiritual influences on adolescent health. The cooperative, communal act of meal preparation and time spent together at the dinner table are valuable social influences on adolescent development (Fulkerson*et al.* 2010). Psychological research in this area has found that adolescents tend to be healthier, happier and better adjusted in families that maintain open lines of communication, where the parents are neither punitive nor aloof but rather affectionate and involved in their children's lives, and where parents set clear, consistent rules (Baumrind, 1991). Therefore, families that protect this time around the family meal and make it a reliable fixture of family life probably confer several social advantages to their adolescent children. In contrast, families that rarely dine together might lack the structure and climate that are known to support adolescent health. These findings are also consistent with a sociological research on social support and the related concept of "social capital" (e.g. Kawachi *et al.*2008). This work has shown that more socially isolated adolescents tend to have poor emotional and physical health and lower well-being (Elgar *et al.*, 2010; Morgan and Haglund, 2009). Family meals can give adolescents opportunities to express concerns, to learn from their parents and siblings, to feel valued and supported, and to connect to something that is bigger than themselves.

While evidence for the protective effect of the family meal is compelling, there remains a great deal of speculation about what it is about family meals that protects. While family communication may partially account for this trend, Elgar *et al.* demonstrate that the protective effect is present even where poor family communication exists (2013). Eisenburg *et al.* suggest that family meals provide opportunities to discuss risk behaviours with children as well as to model coping

strategies and health behaviours (2004), findings that may be explained by the quality of parent/child communication and parental behaviour. Further, a five-year, longitudinal study of adolescent girls discovered that eating five or more family meals per week had a protective effect around disordered eating, even after adjusting for factors such as sociodemographic characteristics, body mass index and family connectedness (Newark-Sztainer *et al.*, 2008). While much is unknown about the mechanisms that underlie the protective effect, it is possible that it is related to settings that foster communication, shared values and decisions, organization and togetherness.

Theological reflection causes us to wonder if there is more that happens in communal eating than can be measured in an empirical study. French sociologist Jean-Claude Kaufmann argues that in the West, the history of the meal is closely linked to Christianity, and in particular, to the Pauline texts. He writes: "in all societies, since the beginning of time, sharing a meal has been a way to seal friendship and peace, to forge social ties…The primary forms of kinship…were concretely created by the sense of familiarity surrounding meals" (Kaufmann, 2006: 65). In eating, much more happens than the satisfying of physical hunger, and a meal can be an important part of community, fundamentally building people up and contributing to their personhood. Chester argues that meals have the power to shape and reshape community, particularly in terms of shifting power relationships in which a leader becomes one who serves. Moreover, he suggests that when they are included around a meal table, the marginalized cease to be marginalized, the lonely cease to be lonely and strangers become friends: people slow down, the possibility for conflict to be resolved occurs and relationships are developed and nurtured (Chester, 2011). Table fellowship, argues Wirzba, makes possible "genuine encounters with others" and is "among the most powerful ways we know to extend and share in each other's lives" (2011: 148). Sharing a meal with others potentially meets our deep needs to be fed and to belong, and nurtures us at the core of what it is to be human.

In both theological and health promotion research, there is still a great deal to understand about the origins of these protective effects. However, the evidence for the effects is so compelling that health researchers have put forward the idea of family meal-based health interventions. Nemakr-Sztainer *et al.* call for health professionals to reinforce the benefits of family meals and to help families set realistic goals for increasing family meal frequency given time constraints, to explore ways to enhance the atmosphere at family meals and discuss strategies for creating healthful and easy-to-prepare family meals (2008), Fiese and Schwartz propose age-appropriate activities for family to encourage communication during mealtime (e.g., turning off televisions and mobile phones and having children help prepare food) (2008). A study from Quebec proposes that nutrition interventions focus on the social aspect of meals, and recommends that parents allow sufficient time for eating and encourage sitting down to eat at roughly the same time every day and avoiding conflicts during meals (Institute de la Statistique du Quebec, 2005).

Despite strong theological arguments for the centrality of communal eating as a response to the Christian life, and despite the compelling health-based evidence

that family meals benefit children in many ways, the church has yet to invest meaningful energy into resource development and to prioritize the formulating of theological messages that encourage regular participation in a family meal, or other forms of communal eating. The results of this study suggest that intentional and regular shared meals at churches, for example, could be one important way to model what a "family" meal might look like. Also, the church then reinforces the messages that both eating and community are good.

Strategies outlined above are an excellent starting place for church-based interventions. Further, communal eating as experienced in the family meal has the potential to be a place and time in which participants are drawn more deeply into a life of hospitality, inclusion and love in a way that is life affirming. The church could make a unique contribution to the promotion of family meal-based interventions by way of suggesting the potential of communal eating as a benefit not just for individuals but for the whole community (including those who are marginalized, excluded and hungry).

Regardless of the membership that constitutes the family, communal eating around a family table offers an opportunity to practice hospitality, including inviting those who are marginalized into our homes; to serve others and to be served; to meaningfully contribute to family life; to experience and express gratitude; to participate in meaningful ritual and to be nurtured by sharing stories of life. Moreover, communal eating offers us the opportunity to think about ethical issues around eating: that how we eat, what we eat and with whom we eat are responses to God's gifts of life to us and also impact the lives of others.

Some caution is warranted in this thinking. Family meals could become a legalistic practice based on following strict rules or a backward attempt to preserve a more traditional world. Both the culture in which we live, and the institution of the family are undergoing transformation and some structures around the family meal will (and need to) change as well. There are opportunities for the church to offer leadership in terms not of clinging to past structures, but modelling creative ways of eating that are life affirming, and rooted in the generous hospitality, radical inclusion, joyful celebration and deep reconciliation that is shown to us by Jesus. If this were the norm in the culture of the church, we would potentially expect to see a relationship between involvement and powerful health benefits in the lives of adolescent girls (and indeed, all children). This would be not only in terms of decreased participation in some destructive risk behaviours, but extend into the whole of their lives, including higher levels of emotional well-being.

Encouraging family meals as a response to the life and teachings of Jesus is one way of embracing an integrative theology that takes seriously the whole of our embodied reality and that extends spiritual practices for young people beyond church walls. The theological and ethical nature of communal eating suggests additional potential explanations for the powerful protective effect of the family meal. Along with health professionals, religious leaders have a role to play in conveying the powerful benefits of communal eating to young people in our contemporary world. These include potential benefits across all the domains of health: social, emotional, physical and spiritual (Vader, 2006).

Strengths of this national study include its novelty to the field of practical theology, its focus on health among the under-studied yet vulnerable population of adolescent girls, and its convincing demonstration of known strong consistent health patterns, both emotional and behavioural, associated with church involvement and also with participation in family meals. Its trans-disciplinary nature combines recent thinking from the health sciences, psychology and theological fields, resulting in a recommendation for church-based interventions that encourage family meals and could help adolescent girls to thrive.

Limitations of this study include the depth of understanding that can come from a quantitative study with fixed measures for a topic of such complexity. Further study, both quantitative and qualitative, is needed to provide this depth. One way forward is to use tools of qualitative and ethnographic research to understand more deeply what adolescents, both girls and boys from a range of cultures, are experiencing in terms of communal eating. The benefits of these kinds of study would be a deeper and more nuanced understanding of what is happening in the lives of young Canadians and their relationship to family meals. This needs to be extended to both church involved and non-involved young people, as well as young people from a diversity of religious traditions. Such expansion in thinking and scope would more clearly point to practical opportunities to help young people through understanding potential relationships between faith experience and communal eating.

Our study is further limited by its measures of church affiliation and involvement. Our sample of church-involved adolescents included a small proportion of young people who are affiliated with other religions. We had no information with respect to individual church denominations and their theological emphases, as well as the nature and depth of involvement in these church groups. More nuanced measures are required to determine whether relationships between family meals and the indicators of health are more pronounced or even attenuated within these more specific church groups and activities.

Conclusion

This study presents a conversation between theology, church practice and current health research. That our findings did not demonstrate associations between current church engagement and the emotional health of Canadian adolescent girls suggests the need for more integrative message and practice. Findings confirmed the strong protective relationship between regular participation in the family meal and health benefits in the same population. Drawing on health research and theological/ethical reflection, we argue that encouraging regular participation in the family meal is a natural and potentially powerful spiritual practice that could specifically benefit adolescent girls. Throughout the biblical narrative, people gather around meals. Consistently, the pattern of God's love and care for their bodily needs are part of care for the whole of their human personhood. In the Eucharist, Jesus offers us a pattern of eating that draws all participants into new life. As Wirzba insists, when our home table is rooted in this one meal, "Christians learn what it is to be present to and responsible for each other. In their economies

of food production and consumption they are to testify to life rather than death" (Wirzba, 2011: 153).

Our hope in this study was to provide new insights into the importance of family meal practices and the health of families, and by extension what it might mean for the church to encourage family meals as a healthy response to living the Christian life. By helping families understand the importance of the family meal as a spiritual practice that is rooted in the life and teaching of Jesus, and by providing practical, ethically grounded and theologically rich tools for practicing the family meal in our busy culture, this study has the potential to contribute to the overall holistic health of young people within and outside the church.

Acknowledgements

The Public Health Agency of Canada and Health Canada funded Cycle 6 of the Health Behaviour in School-Aged Children Survey in Canada. Additional support for this analysis included operating grants from the Canadian Institutes of Health Research (CIHR Grant MOP 97962; CIHR/HSF Grant PCR 101415; CIHR Grant FRN 130379).The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. International coordinator of the HBSC survey is Dr Candace Currie, University of St Andrews, Scotland. The international databank manager is Dr Oddrun Samdal, University of Bergen, Norway. The Canadian principal investigators of HBSC are Drs John Freeman and William Pickett, Queen's University.

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Notes on contributors

Rev Dr Valerie Michaelson is a Postdoctoral Researcher at The School of Religion, Queen's University, Kingston, Ontario, Canada.

Correspondence to: The School of Religion, Queen's University, Kingston, Ontario, Canada. Email: valerie.michaelson@queensu.ca.

Dr Tracy Trothen is Associate Professor of Ethics and Christianity, School of Religion, Queen's University, Kingston, Ontario, Canada.

Dr Colleen Davison a Research Scientist and Adjunct Assistant Professor in the Department of Public Health Sciences at Queen's University and the Clinical Research Centre at Kingston General Hospital, Kingston, Ontario, Canada.

Dr Frank J. Elgar is Associate Professor in the Department of Psychiatry at the Institute for Health and Social Policy, McGill University, Montreal, Canada.

Dr William Pickett is a Professor in the Department of Public Health Sciences and also Emergency Medicine at Queen's University, Kingston, Canada.