KNOWLEDGE EXCHANGE

SEMINAR SERIES





How to reduce teenage pregnancy in Northern Ireland? A movie-based educational approach

Dr Maria Lohan, Áine Aventin & Dr Peter O'Halloran Queen's University Belfast

m.lohan@qub.ac.uk

Executive Summary

1. What is the current status of teenage pregnancy in the UK and Northern Ireland?

The UK has the highest rate of teenage pregnancy in Western Europe. The birth rate for NI in 2010 was 15 per 1000 young women aged under 20 years and the rate for young women in the most deprived areas was nearly 30 per 1000.

2. Why address teenage men in relation to teenage pregnancy?

Teenage men are half of the problem and therefore half of the solution.

3. What is the movie-based educational approach QUB has developed?

The educational resource, entitled "If I were Jack..." aims to increase boys' and girls' intention to avoid a teenage pregnancy by raising awareness among young men as well as young women about the potential consequences of an unintended pregnancy in their lives.

4. What is the evidence for this approach?

The resource is informed by empirical research on adolescent men and their attitudes to teenage pregnancy and the evidence base relating to acceptable and effective sexual health educational interventions.

http://www.gub.ac.uk/lflWereJack

Introduction

The briefing paper will address the following questions

- 1. What is the current status of teenage pregnancy?
- 2. Why address teenage men in relation to teenage pregnancy?
- 3. What is the movie-based educational approach QUB has developed?
- 4. What is the evidence for this approach?

1. What is the current status of teenage pregnancy in the UK and Northern Ireland?

The UK has the highest rate of adolescent pregnancy in Western Europe (Lawlor and Shaw, 2004). Whilst rates of teenage pregnancy have been gradually falling across the UK (including NI) since 2002, in 2010 the rate of pregnancy for girls aged under 20 in England and Wales remains stubbornly high at 54.6 per 1,000. A total of 34,633 women under the age of 18 became pregnant in England and Wales in 2010. Of these, half led to a legal abortion (Office for National Statistics, 2012). In NI, abortion is only considered lawful in exceptional circumstances where it is necessary to preserve the life of the woman, or there is a risk of real and serious adverse effect on her physical or mental health, which is either long term or permanent. In any other circumstance it would be unlawful to perform such an operation (Offences against the Person Act 1861 and in the Criminal Justice Act (Northern Ireland) 1945. Reflecting this different legal framework, government targets around reducing teenage pregnancies in NI relate to births and not conceptions. The birth rate for NI in 2010 was 15 per 1000 young women aged under 20 years and the rate for young women in the most deprived areas was nearly 30 per thousand (DHSSPS, 2012).

Although it has also been recently acknowledged that not all adolescent pregnancies are unintended and that the lifecourse for teenaged parents is not universally negative (Bonell, 2004; Duncan et al., 2010), unintended adolescent pregnancy remains a major component of adolescent pregnancies and risks considerable adverse health problems for teenagers and their infants as well as generating enormous emotional, economic and social costs¹ for adolescents, their families and society globally (see Savio Beers and Hollo, 2009 for an overview).

¹ On the basis that a teenage pregnancy effectively withdraws the mother from the labour market for at least one and a half years, the DHSSPS estimate of the cost of the teenage pregnancy to the Exchequer (unemployment benefits and administration, plus tax revenue foregone) stands at £20,000 per mother (DHSSPS, 2008:9).

2. Why address adolescent men in relation to teenage pregnancy?

It is increasingly apparent to researchers, practitioners, parents and others who work with youth that targeting teenage men is an important, yet neglected, part of addressing unintended teenage pregnancy (Swann et al., 2003; Smith et al., 2005; AGI, 2002; Marsiglio et al., 2006; Lindberg et al., 2008; Lohan et al., 2010). Teenage men are currently much less likely to receive education in relation to pregnancy and pregnancy prevention in schools (Schubotz et al., 2004; Hyde et al., 2005; AGI, 2002) and both US and Irish research suggests that parents are far more likely to have discussed pregnancy with their daughters than their sons (Marsiglio et al., 2006; Hyde et al., 2009). Other research suggests that teenage men are more likely to rely on pornography as a valued source of information on sexual relationships (Limmer, 2010). Yet, there is also recognition that teenage men's understanding of an unintended pregnancy is important. Research suggests that how women define and cope with an unintended pregnancy is strongly influenced by male partners and the support of a male partner can ease the burden of an unintended pregnancy (Mahon, et al., 1998; Farley & Cowley, 2001; Hyde, 2003; Sivho et al., 2003; Dudgeon & Inhorn, 2004).

Furthermore, as noted in the *Sexual Health Promotion Strategy* for NI (DHSSPS, 2008), addressing teenage men's sexual and reproductive health is an important mechanism for promoting positive development and improving the lives of young adults especially among those suffering the effects of various types of disadvantage (Smith et al., 2005; AGI, 2002; Marsiglio, et al., 2006; Lindberg, et al., 2008). Reproductive health and well-being becomes an integral part of young women's lives from menstruation onwards as health and education providers strive to inform women on how to establish positive relationships based on mutuality and respect and to protect their bodies. Similarly, men's adolescent years are a critical opportunity for reaching out to young men, to promote positive relationships, to reduce coercion in relationships with women and to help young men resist peer pressure to have sex. In common with teenage women, connecting with young men in relation to their sexual and reproductive health and relationships could have a sustained impact through their adult years (Dodge & Rabiner, 2004; Park & Breland, 2007; Smith, et al., 2005). Thus, it is important to generate and scientifically evaluate interventions that are specifically tailored to teenage men (Fullerton, 2004; Engenderhealth, 2005; Marsiglio, 2006).

3. What is the movie-based approach QUB has developed?

Working in collaboration with researchers at Flinders University Australia and University College Dublin, researchers at the School of Nursing and Midwifery QUB carried out research on young men's attitudes to teenage pregnancy and parenthood in schools in the Republic of Ireland in 2009. This research involved the development of an interactive video drama (IVD) called "If I were Jack…" for the purposes of data collection. Following the completion and publication of the research (Lohan et al. 2010; 2011a; 2012), work is now underway to use this version of the IVD (along with Northern Ireland and Australian versions) as the basis of an educational resource for use in post-primary schools in Northern Ireland, the Republic of Ireland and South Australia (funded by an ESRC knowledge exchange research grant ES/J000566/1).

The educational resource, entitled "If I were Jack..." aims to increase boys' and girls' intention to avoid a teenage pregnancy by raising awareness among young men as well as young women about the potential consequences of an unintended pregnancy in their lives and by increasing young people's self-efficacy in communicating about unintended pregnancy. The resource includes a culturally sensitive interactive video drama (IVD) which tells the story of an unexpected pregnancy from a teenage man's perspective. It also contains educational materials to assist teachers in using the IVD in the classroom, a training package for teacher trainers, and an information letter template and web-based educational material for parents. The resource is non-directive in terms of pregnancy resolution options and is designed to be flexible to fit in with the relationship and sexuality education/personal development policy of each school and facilitates teacher, pupil and parental discussions.

The research team has engaged with key government departments from the outset to ensure that the resource can assist in the delivery requirements of the NI Government's Sexual Health Promotion Strategy and Action Plan 2008-2013 (DHSSPS, 2008) and the Government's statutory requirement to develop the Personal Education Curriculum for schools in Northern Ireland. While the primary contribution of the research team has been the development of an evidence-based, theory-informed educational resource, working in close co-operation with key government departments/agencies (including Department of Health Social Services and Public Safety, NI (DHSSPS) Public Health Agency (PHA) NI; Council for the Curriculum Education and Assessment (CCEA) NI; The Health Services Executive Crisis Pregnancy Programme (CPP), (RoI) and the Department of Education and Skills (RoI)) has ensured that the resource reaches the target population. This collaboration is being sponsored by the research team's ESRC knowledge transfer grant, leading to shared learning between health and education specialists and supporting the implementation of the Belfast Agreement.

Further details of the 'If I were Jack...' resource currently under development for use in secondlevel schools in Northern Ireland and the Republic of Ireland are available from: <u>http://www.qub.ac.uk/lflWereJack</u>

4. What is the evidence for this movie-based educational approach?

It is widely accepted that teenage pregnancy is a complex personal and social phenomena that cannot be prevented through sex and relationship education alone (Wight et al., 2002; DiCenso et al., 2002; Silva, 2002; Fullerton, 2004; Henderson et al., 2007). However, research has also demonstrated that high quality sex education is a necessary component in reducing the burden of unintended pregnancies for individuals and society more broadly, as well as being a vital aspect of improving holistic sexual health and wellbeing amongst young people (Swann et al., 2003; Stephenson et al., 2003; 2008; Downing et al., 2006; Ellis and Grey; 2004; Ingham and Hirst, 2010; Oringanje et al., 2010).

The "If I were Jack...." educational resource is informed not only by the baseline empirical research on adolescent men and their attitudes to teenage pregnancy developed in our own prior research but also builds upon the evidence base relating to acceptable and effective sexual health educational resources in the following key ways.

I. The importance of a theoretically based sexual health education programme is considered to be key to its effectiveness because it ensures that we target the most important determinants of young people's sexual behaviour (Wight et al., 1998; Swann et al., 2003; Kirby, 2007; Jones et al., 2009; Bailey et al., 2010; Fullerton and Butney, 2010). The theoretical basis of the IVD and associated educational materials combines with the well-established Theory of Planned Behaviour (Ajzen, 1988; Ajzen & Madden, 1986) which focuses on the individual behavioural antecedents of an unplanned pregnancy with an understanding of the broader socio-environmental factors (such as social class) and underlying values (such as religiosity/gender ideologies) associated

with the occurrence of teenage pregnancies. The development of this theoretical model is based upon the research team's systematic review of the literature on adolescent men's attitudes and decision-making in relation to an unintended pregnancy (Lohan et al., 2010).

- II. The idea behind making versions of the IVD set in both Northern Ireland and the Republic of Ireland is to provide the greatest possible opportunity for young people in both jurisdictions to identify with the actor and actor's context. It responds to research which suggests the need to develop personalized and targeted messages which could make sexual risk a meaningful concept in the lives of those for whom it is intended (Wight et al., 1998; Kirby, 2002; Ellis and Grey, 2004; Bailey et al., 2010; Fullerton and Butney, 2010).
- III. Reviews of health promotion and educational interventions show that simply providing information does not lead to behaviour change (Wight et al., 1998; Kirby, 2002; Swann et al., 2003; Ellis and Grey, 2004; Downing, 2006; Hirst, 2008; Bailey et al., 2010; Fullerton and Butney, 2010). The "If I were Jack..." educational resource is based on constructivist ideas of education and, in particular, on the need for active participation by the users so as to increase self-awareness, encourage 'stop and think' strategies in relationships and build communication skills amongst young people to help them avoid an unintended pregnancy in their lives.
- IV. Research has also noted that probably the most important contribution a sex education programme can make is in promoting mixed-sex communication in a safe environment around issues such as teenage pregnancy (Wight et al., 1998). The broad aim of the "If I were Jack..." resource is to open up for scrutiny the gender norms which typically situate the issue of a teenage pregnancy as a woman's problem and to desensitize the discussion of sexual and reproductive topics through practicing explicit 'verbal scripts' for such conversations between young men and women.
- V. Although evidence has shown that the classroom is an important context of sex education for young men (Wight et al., 1998; Wellings et al., 2001 Marsiglio et al., 2006), a recent systematic review of studies has also shown that programmes that reach beyond the classroom (include multi-faceted approaches such as a parental or

community component) are more effective (Oringanje et al., 2010; Gavin et al., 2010), and particularly so with adolescent men (Marsiglio et al., 2006). No consensus has yet emerged specifically on the effects of parental communication on adolescent safe sexual behaviours, with some studies indicating a positive relationship between the two (Wellings et al., 1999; 2001; Stone and Ingham, 2002; Markham et al., 2010 Wight and Fullerton, 2012), but others (Wight et al., 2006) indicating that the level of comfort in talking to parents about sex bore little relationship with young people's sexual practices. However, Parkes et al., (2011) have concluded that parental communication may be a protective factor in encouraging young men when sexually active to use condoms and, more broadly, that generally supportive parent-teenager relationships and indirect communication of perceived parental values appears to be an important protective factor in adolescents' behaviours and 'family connectedness' has also been specifically linked to fewer adolescent pregnancies (Markham et al., 2010). In addition, surveys of parents consistently show that parents are in favour of schools providing RSE education and parental involvement can have a positive impact on the effectiveness of such programmes (Ingham and Hirst, 2010; Lohan, Kelly and Spence, 2011b). As part of this educational resource, we have developed an information letter template for schools to send to parents/guardians; a home- work task which involves parent-child communication; and guidance for teachers if they chose to convene a parents/guardians' session to help parents become aware of the content of the resource and to develop parents' awareness and communication skills relating to the possibility of an unintended pregnancy in their child's life.

VI. Finally, our aim in incorporating the medium of drama and film in an IVD is to engage with young men both empathetically and cognitively in order to increase the relevance of the project. However, the use of locally produced contemporary drama could also make sex education more enjoyable. As Ingham and Hirst (2010) have noted, it is important to harness the potential for sex education to be keenly anticipated, perhaps especially by those who are less engaged in the wider school curriculum This may be especially important in light of the fact that dislike of school appears to be an important risk factor for teenage pregnancy (Bonnel et al., 2005; Hosie, 2007; Harden et al., 2009). Hence, the development of this intervention will pave the way for further evaluation research to assess its effectiveness.

Biographies:

Dr Maria Lohan is a Senior Lecturer in Health Sciences in the School of Nursing and Midwifery, QUB and the University of British Columbia, Peter Wall Institute International Visiting Research Scholar 2012/2013. Her research interests include men's health and fatherhood. She has recently written a policy briefing paper on fatherhood: *Understanding Fatherhood in the 21st Century – A Policy Briefing Paper for Northern Ireland,* and is currently guest editor of a special issue of the *Journal of Family Issues* entitled Men and Reproduction. Maria serves on the editorial board of the *International Journal of Men's Health* and on the Management Board of the *Men's Health Forum of Ireland.*

Áine Aventin is a research fellow at the School of Nursing and Midwifery, QUB. As part of her PhD research she has led the development of an innovative therapeutic intervention, which incorporated a computer game and emotion regulation skills coaching, designed specifically for young people in residential care. Her research interests lie in the development and implementation of complex interventions for children and young people and the use of new technologies for encouraging adolescent engagement in positive health related behaviours.

Dr Peter O'Halloran is a lecturer in the School of Nursing and Midwifery, QUB. He was a coinvestigator on the original research supporting "If I were Jack..." and helped develop and adapt the IVD for use in Ireland. His research interests lie in the evaluation of complex healthcare interventions, particularly in the area of cancer and palliative care, including young people with life-limiting illnesses.

Full lists of current research outputs are available from

http://www.qub.ac.uk/lflWereJack

References

- AGI (Alan Guttmacher Institute). (2002). In their own right: Addressing the sexual and reproductive health needs of American men. NY: Alan Guttmacher Institute.
- Ajzen, I. (1988). Attitudes, Personality and Behavior. Milton Keynes: Open University Press.
- Ajzen, I. and Madden, T.J. (1986). Prediction of goal directed behavior: attitudes, intentions and perceived behavioral control. *Journal of Experimental Social Psychology*, vol. 22, pp. 453–474.
- Bailey, J. V., Murray, E., Rait, G., Mercer, C. H., Morris, R. W., Peacock, R., et al. (2010). Interactive computer-based interventions for sexual health promotion (Protocol). *Cochrane Database of Systematic Reviews*, 9:CD006483.
- Bonell, C. P. (2004). Why is teenage pregnancy conceptualized as a social problem? A review of quantitative research from the US and the UK. *Culture, Health and Sexuality,* 6, 255-272.
- Bonell, C. P., Allen, E., Strange, V., Copas, A., Oakley, A., Stephenson, J., et al. (2005). The effect of dislike of school on risk of teenage pregnancy: testing of hypotheses using longitudinal data from a randomised trial of sex education. *Journal of Epidemiology and Community Health*, 59, 223.

- DHSSPS (Department of Health, Social Services and Public Safety). (2008). Sexual Health Promotion: Strategy and Action Plan 2008-2013. Belfast: DHSSPS.
- DHSSPS (Department of Health, Social Services and Public Safety) (2012). NI Health & Social Care Inequalities Monitoring System. Fourth update bulletin 2012. DHSSPS, 2012. Available at www.dhsspsni.gov.uk/inequalities_monitoring_update4-2.pdf accessed 15th October 2012
- DiCenso, A., Guyatt, G., Willan, A., & Griffith, L. (2002). Interventions to reduce unintended pregnancies among adolescents: systematic review of randomised controlled trials. *BMJ*, 324, 1426.
- Dodge, K. A., & Rabiner, D. L. (2004). On social information processing and moral development. *Child Development*, 75, 1003-1008.
- Downing, J., Jones, L., Cook, P. A., & Bellis, M. A. (2006). Prevention of sexually transmitted infections (STIs): a review of reviews into the effectiveness of non-clinical interventions. Evidence briefing update. London: NICE.
- Dudgeon, M. R., & Inhorn, C. (2004). Men's influences on women's reproductive health: medical anthropological perspectives. *Social Science and Medicine*, 59, 1379-1395.
- Duncan, S., Edwards, R., & Alexander, C. (2010). Teenage Parenthood: What's the problem? London: The Tufnell Press.
- Ellis, S. & Grey, A. (2004) Prevention of Sexually Transmitted Infections(STIs): a review of reviews into the effectiveness of non-clinical interventions to reduce the risk of sexual transmission. Evidence briefing http://www.nice.org.uk/page.aspx?o=502657 accessed November 2010.
- EngenderHealth (2005) Male reproductive services model, EngenderHealth, 2005 http://www.engenderhealth.org/ia/wwm/emrhm0.html accessed June 10th 2010.
- Farley, T., & Cowley, C. (2001). Adolescent girls' attitudes toward pregnancy. *Journal of Family Practice*, 50, 603-607.
- Fullerton, D., & Butney, L. (2010). An overview of the effectiveness of sexual health improvement interventions. NHS Scotland.
- Fullerton, D. (2004). Promoting Positive Adolescent Sexual Health & Preventing Teenage Pregnancy A Review of Recent Effectiveness Research. Dublin: Crisis Pregnancy Agency (now Crisis Pregnancy Programme).
- Gavin, L., Catalano, R., David-Ferdon, C., Golpeen, K., & Markahm, C. (2010). A review of positive youth development programs that promote adolescent sexual and reproductive health. *Journal of Adolescent Health,* 46, 75-91.
- Harden, A., Brunton, G., Fletcher, A., & Oakley, A. (2009). Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. *BMJ*, 339, b4254.
- Henderson, M., Wight, D., Raab, G. M., Abraham, C., Parkes, A., Scott, S., et al. (2007). Impact of a theoretically based sex education programme (SHARE) delivered by teachers on NHS registered conceptions and terminations: final results of cluster randomised trial. *BMJ*, 334, 133.
- Hirst, J. (2008). Developing sexual competence? Exploring strategies for the provision of effective sexualities and relationships education. *Sex education*, 8, 399-413.
- Hosie, A. C. S. (2007). 'I Hated Everything About School': An Examination of the Relationship between Dislike of School, Teenage Pregnancy and Educational Disengagement. Social Policy and Society, 6, 333-347.
- Hyde, A. (2003). Resistance to male dominance in the social organisation of reproduction: The case of unmarried women during pregnancy and early motherhood. *Irish Journal of Feminist Studies*, 5, 5-19.
- Hyde, A., Howlett, E., Drennan, J., & Brady, D. (2005). Masculinities and young men's sex education needs in Ireland: problematizing client-centred health promotion approaches. *Health Promotion International*, 20, 334-341.
- Hyde, A., Carney, M., Drennan, J., Butler, M., Lohan, M., & Howlett, E. (2009). Parents' Approaches to educating their pre-adolescent and adolescent children about sexuality and reproduction. Dublin: Crisis Pregnancy Agency (now Crisis Pregnancy Programme).
- Ingham, R., and Hirst, J. (2010) Promoting sexual health. In P. Aggeleton, C. Dennison and I. Warwick (eds) *Promoting Health and Well-being through Schools*. London and New York: Routledge.pp.99-119.
- Jones, L., Bates, G., Downing J., Sumnall, H. and Bellis M. A. (2009). PSHE Secondary school review: A review of the effectiveness and cost effectiveness of personal social and health education in

secondary schools focussing on sex and relationships and alcohol education for young people aged 11-19 years. Final Report. Liverpool John Moores University, Centre for Public Health.

- Kirby, D. (2007). Emerging Answers 2007: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases. Washington DC: National Campaign to Prevent Teen and Unplanned Pregnancy.
- Kirby, D. (2002). Effective approaches to reducing adolescent unprotected sex, pregnancy, and childbearing. *Journal of Sex Research*, 39, 51-57.
- Lawlor, D. A., & Shaw, M. (2004). Teenage pregnancy rates: high compared with where and when? Journal of the Royal Society of Medicine, 97, 121-123.
- Limmer, M. (2010). Young Men, Masculinities and Sex Education. Sex Education: Sexuality, Society and Learning, 10, 349-358.
- Lindberg, L. D., Sonfield, A., & Gemmill, A. (2008). Reassessing adolescent male sexual and reproductive health in the United States: research and recommendations. *Am J Men's Health, 2*(1), 40-56.
- Lohan, M. (2007) How might we understand men's health better? Integrating explanations from critical studies on men and inequalities In health. *Social Science and Medicine*, 65: 493-504
- Lohan, M., Cruise, S., O'Halloran, P., Alderdice, F., & Hyde, A. (2010). Adolescent men's attitudes in relation to pregnancy and pregnancy outcomes: A systematic review of the literature from 1980-2009. Journal of Adolescent Health, 47, 327-345.
- Lohan, M., Cruise, S., O'Halloran, P., Alderdice, F. and Hyde, A. (2011a) Adolescent men's attitudes and decision-making in relation to an unplanned pregnancy. Responses to an interactive video drama, Social Science and Medicine, 72, 1507-1514.
- Lohan, M., Kelly, C. and Spence, D. (2011b) Citizens' Attitudes to Relationship and Sexuality Education in Post-Primary Schools in Northern Ireland. Research Briefing Paper No. 1 Child Forum QUB Sexual and Reproductive Health Special Interest Group. <u>http://www.qub.ac.uk/sites/TheResearchForumForTheChild/FileStore/Filetoupload,260840,en.pdf</u> . Last accessed October 15th 2012.
- Lohan, M., O'Halloran, P., Cruise, S., Alderdice, F. and Hyde, A. (2012) If I were Jack, Teenage Men's Attitudes and Decision-making in relation to an Unintended Pregnancy. Final report. Dublin: Health Services Executive (IrI) Crisis Pregnancy Programme. Report available to download from http://www.gub.ac.uk/lflWereJack
- Mahon, E., Conlon, C., & Dillon, L. (1998). Women and Crisis Pregnancy. Dublin: Crisis Pregnancy Agency (now Crisis Pregnancy Programme).
- Markham CM, Lormand, D. Gloppen KM et al., (2010). Connectedness as a predictor of sexual and reproductive health outcomes for youth. *Journal of Adolescent Health* 46; 23-41.
- Marsiglio, W., Ries, A., Sonenstein, F., Troccoli, K., & Whitehead, W. (2006). It's a guy thing: Boys, young men, and teen pregnancy prevention. Washington, DC: National Campaign to Prevent Teen Pregnancy.ONS (Office for National Statistics). (2012). Conception statistics in England and Wales, 2010. ONS.
- Oringanje, C., Meremikwu, M. M., Eko, H., Esu, E., Meremikwu, A., & Ehiri, J. E. (2009). Interventions for preventing unintended pregnancies among adolescents. *Cochrane Database of Systematic Reviews*, 4: CD005215.
- Park, M. J., & Breland, D. (2007). Starting on a healthy path: Promotion of young men's sexual health. *Journal of Men's Health,* 1, 148-153.
- Parkes, A., Henderson, M., Wight, D., & Nixon, C. (2011). Is parenting associated with teenagers' early sexual risk-taking, autonomy and relationship with sexual partner? *Perspectives on reproductive and Sexual Health*, 43, 30-40.
- Savio-Beers, L.A. and Hollo, R.E. (2009) Approaching the adolescent-headed family: a review of teen parenting. *Current Problems in Pediatric and Adolescent Health Care*, 39, 216–233.
- Schubotz, D., Rolston, B. and Simpson, A. (2004) Sexual behaviour of young people in Northern Ireland: first sexual experience. *Critical Public Health*, 14, 177-190.
- Sihvo, S., Bajos, N., Ducot, B., & Kaminski, M. (2003). Women's life cycle and abortion decision in unintended pregnancies. *Journal of Epidemiology & Community Health,* 57, 601-605.
- Silva, M. (2002). The effectiveness of school-based sex education programs in the promotion of abstinent behavior: a meta-analysis. *Health Education Research*, 17, 471-481.

- Smith, L. H., Guthrie, B. J., & Oakley, D. J. (2005). Studying Adolescent Male Sexuality: Where Are We? Journal of Youth and Adolescence, 34, 361-377.
- Stephenson, J. M., Oakley, A., Johnson, A. M., Forrest, S., Strange, V., Charleston, S., et al. (2003). A school-based randomized controlled trial of peer-led sex education in England. *Controlled Clinical Trials*, 24, 643-657.
- Stephenson, J. M., Strange, V., Allen, E., Copas, A., Johnson, A. M., Bonell, C., et al. (2008). The longterm effects of a peer-led sex education programme (RIPPLE): A cluster randomised trial in schools in England. *PLoS Medicine*, 5, e224-1590.
- Stone, N., and Ingham, R., (2002). Factors affecting British teenagers' contraceptive use at first intercourse: the importance of partner communication. *Perspectives on Reproductive and Sexual Health* 34, 191-7.
- Swann, C., Bowe, K., McCormick, G., & Kosmin, M. (2003). Teenage pregnancy and parenthood: a review of reviews. Evidence briefing. London: Health Development Agency.
- Wellings, K., Nanchahal, K., Macdowall, W. et al. (2001). Sexual behaviour in Britain: early heterosexual experience. *Lancet.* Vol. 358 No. 9296 P.1843-1850.
- Wellings, K., Wadsworth, J., Johnson, A., Field, J., and Macdowall (1999). Teenage fertility and life chances. *Reviews of Reproduction*, 4, 184-90.
- Wight, D., Abraham, C., & Scott, S. (1998). Towards a psycho-social theoretical framework for sexual health promotion. *Health Education Research*, 13, 317-330.
- Wight D., Raab G., Henderson M., Abraham C., Buston K., Hart G., & Scott S. (2002). The limits of teacher-delivered sex education: interim behavioural outcomes from a randomised trial. *British Medical Journal* 324, 1430-1433.
- Wight, D., Williamson, L. and Henderson, M., (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence*, 29, 473-94.
- Wight, D. and Fullerton, D. (2012, in press). A Review of Interventions with parents to promote the sexual health of their children. *Journal of Adolescent Health,*