

Mothers of teenage girls: knowledge and understanding about human papillomavirus and cervical cancer

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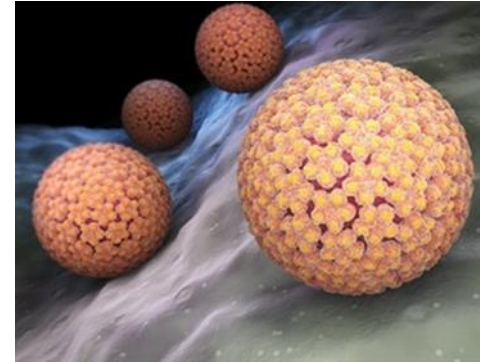
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What is HPV?



- Human papillomavirus
- Sexually transmitted infection
- More than 200 types
 - 6 and 11 – low risk types cause more than 90% genital warts
 - 16 and 18 – high risk types cause 70% of cervical cancer but other cancers as well
- 80% of sexually active individuals will come into contact with HPV
 - Condoms
 - Immune response
- 3126 new cases of cervical cancer, 2015, UK (CRUK)
- 854 deaths from cervical cancer, 2016, UK (CRUK)

HPV vaccination and cervical screening in UK

- In 2008, the HPV vaccination programme was introduced for girls aged 12 to 13
 - Catch-up programmes offering the vaccine to all girls born on/after September 1st 1990
 - Quadrivalent vaccine – 2 doses (3 for pre-Sept 2014)
 - Uptake for 2017-18 was 83.8% for both doses by end of school yr
- Cervical screening in UK 25-64 years
 - Every 3 years 25-49 yrs, every 5 years 50-64 yrs
 - Uptake is falling (2018 – 71.4%, 2011 – 75.7%)

The present study

- Aims:
 - To find out what mothers of girls age 11-18 know and think about HPV
 - To see if the vaccination invitation is a good opportunity to nudge mothers to attend cervical screening

Part 1 - Survey

- 138 women associated with 6 schools in North Staffordshire took part
- 5 sections:
 - basic socio-demographic information
 - knowledge about the causes of cervical cancer
 - knowledge about HPV
 - personal engagement with and knowledge of cervical screening
 - engagement with the HPV vaccination programme and knowledge of HPV vaccination

Causes of cervical cancer

Cause named	(n=138); % (n)
HPV or STD/STI	44.2 (61)
HPV	31.9 (44)
STD/STI (Unspecified)	15.2 (21)
Genital warts	2.2 (3)
Other named STD	1.4 (2)
Sexual behaviour factors	44.2 (61)
Multiple partners	21.0 (29)
Sex at a young age	16.7 (23)
Sex or sexual contact	10.9 (15)
Unprotected sex	7.2 (10)
Biological factors	46.4 (64)
Genetics/Inheritance	28.3 (39)
Genetic/cell mutations	11.6 (16)
Virus/ infection (unspecified)	8.0 (11)
Poor health / Weakened immunity/ Physical trauma	4.3 (6)
Lifestyle factors	37.7 (52)
Smoking	30.4 (42)
Poor diet/ obesity/ lack of exercise	10.1 (14)
Contraception	10.1 (14)
Lifestyle	9.4 (13)

HPV vaccination

Daughter aged 12 or older who has had HPV vaccination	n=100; %
Yes	85.0
No	6.0
Don't know	9.0
Daughter aged 11 or 12 intending to have HPV vaccination	n=78; %
Yes	84.6
No	3.8
Don't know	11.5
Reasons for vaccinating or intending to vaccinate	n=124; %
Protection/Prevention of cervical cancer	61.3
Accept all vaccines/medical interventions	4.8
Vaccine is well-researched	3.2
Discussed with daughter	3.2
Reasons for not vaccinating or being unsure whether to vaccinate	n=14; %
Don't know enough about it	6
Not enough research	3
Concerned about side-effects	3
Don't believe in vaccinations	1
Child intends to abstain from sex	1
Do you think girls who are vaccinated will need to go for cervical screening in the future?	n=138; %
Yes	89.1
No	0.7
Don't know	9.4

HPV knowledge

Heard of HPV (n=110); 80%	
What do the letters HPV stand for?	
Correct - Human Papilloma Virus	67.3
Incorrect	32.7
What is HPV?	
Correct - Virus or STI/STD	70.0
Incorrect	30.0
How does someone contract HPV?	
Correct - Sex or sexual contact	66.4
Incorrect	33.6
What is the relationship, if any, between HPV and cervical cancer?	
Correct - Causal/ Increases risk	64.5
Incorrect	35.5
Do you think the HPV vaccine will prevent all cases of cervical cancer?	
Correct - No	63.6
Incorrect	36.4
Knowledge Score (Out of 5)	
Mean	3.32
Std Dev	1.533

Part 2 - Focus groups

Participant demographics

- 15 mothers; 4 focus groups and 1 interview.
 - Age range 35-51 years, $M = 45$ ($SD = 4.5$)
 - All had daughters aged 11-18.
 - All mothers were of white British ethnicity.
 - Only 2 of the mothers had daughters who had not yet received the HPV vaccine.

Focus group findings

- 2 main themes:
 - Theme 1: Limited knowledge and uncertainty
 - Theme 2: Trusting and unquestioning
- The importance of communication was embedded throughout these two main themes.

Findings

Theme 1: Limited knowledge and uncertainty

- Knowledge of cervical cancer and HPV was generally quite limited and uncertain.
 - For example, the majority of the mothers were aware of the link between cervical cancer and HPV but were uncertain of the specifics, for example:
 - “I don’t really know, I know that there is a connection between the HPV virus and the cancer but I don’t specifically know what that... I don’t know in detail what that is” (Anthea, INT1,).

Theme 1

- Knowledge was particularly limited and uncertain when it came to the HPV vaccine.
 - “All I really knew was that it was a couple of injections over a period of time. That was about it really” (Isobel, FG3).
 - “I think the concern, the talk amongst my colleagues when it first came out was: why are we giving these children a vaccine that’s something to do with something to do with, something that you can pick up sexually? Are we encouraging them to become promiscuous?” (Debbie, FG1).

Theme 1

- Limited knowledge of daughters. Importance of daughters being informed was emphasised.
 - Missed opportunities in school (e.g. PHSE classes).
 - Child appropriate literature needed.
 - Responsibility of the parents (mothers).
 - “So I definitely think it’s down to the parent to make that decision and instil, you know, the awareness for the future” (Kate, FG3).

Findings

Theme 2: Trusting and unquestioning

- Unquestioning trust in the importance of cervical screening (despite uncertain knowledge).
 - “You just know you have to do it. Like having your eyes checked” (Kate, FG3).
 - “I’ve trusted that someone’s worked out the numbers and said that it’s important...” (Andrea, INT1).
 - “I just think I’m going for the screening and that’s that. I don’t know much more about it” (Alice, FG1)

Theme 2

- Vaccine - “went with the flow” (Debbie, FG1) and “rolled along with it” (Claire, FG1), a natural follow-on from other vaccinations.
 - NHS wouldn’t invest in something not effective.
 - Anticipated regret.
 - Little discussion, not open to negotiation.
 - Already made up minds.
 - Would take a lot to deter them from consenting.

Could the HPV vaccination invitation be an opportunity to nudge mothers about the importance of attending cervical screening?

Supportive

- “I think it would be a really good idea” (Jackie, FG3).
- “It might just catch the odd one or two who have gone a bit remiss” (Alice, FG1).
- “Better than not doing nothing I suppose isn’t it?” (Jackie, FG3).
- “It wouldn’t do any harm” (Claire, FG1).

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Against

- Concern that it might detract from the intended purpose of the vaccine information.
- “I can see it would be useful to get two messages across. But it might complicate the matter. They might think, is this for me? Or my daughter?” (Kate, FG3).
- “I would write to them directly. Rather than use the daughter’s HPV vaccine” (Fiona, FG1).

Summary of study and next steps

- Despite high uptake of cervical screening and HPV vaccination, relatively low levels of knowledge about causes of cervical cancer and gaps in knowledge about HPV
 - Some confusion about purpose of cervical screening
- Need to conduct the research with more diverse sample
 - Before HPV primary screening comes online, more education about HPV, cervical screening and cervical cancer is needed

Thanks

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- Thanks to Jo's Cervical Cancer Trust for providing materials

Thanks for listening!

If you have any questions about the research reported here, please contact the lead researcher Dr Sue Sherman, s.m.sherman@keele.ac.uk

If you wish to know more about the issues explored by this research, visit Jo's Cervical Cancer Trust website: <https://www.jostrust.org.uk/>

Focus groups

- A flexible question schedule was created covering 3 main areas; cervical cancer, the HPV vaccination, and cervical screening.
- Between 45 minutes and 1 hour in duration.
- Data was analysed thematically using the guidelines of Braun and Clarke (2006).