

Parental Perspectives on Financial Incentives for Adolescents: Findings From Qualitative Interviews

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Abstract

Background. Financial incentives are becoming more common to promote health behaviors; however, little is known about the acceptability of incentivizing adolescent health behaviors. **Design.** Qualitative semistructured phone interviews were conducted with 26 parents who had participated in a research study involving incentivizing a recommended, preventive adolescent health behavior (human papillomavirus vaccination). Data were coded and analyzed to identify themes. Interview domains included the following: preferred incentive distribution, ideal financial incentive amount, and general reactions to economic incentives for preventative services. **Results.** Parents held positive perceptions about incentives and most parents felt that the incentive could be provided directly to their adolescent child, rather than to the parent. Parents stated several benefits from incentivizing adolescent health behavior including creating an opportunity to teach their child about money, reimbursing families for time and effort, and motivating the adolescent to complete the health behavior. Topics for consideration when providing cash incentives to adolescents included the adolescent's maturity level, parents' desire to monitor adolescent's spending, and parents' want to remain involved in health care and financial decisions for their adolescent. **Conclusions.** This study demonstrates the potential for parental acceptance of financial incentives for adolescent health behaviors and explores areas of parental concern around financial incentives, which could help inform future health care–based incentive programs.

Keywords

qualitative interviews, behavioral economics, financial incentives, adolescent vaccination, healthy behaviors

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Introduction

Incentives in health care have historically been used in research to encourage participation and offset the cost and inconvenience of participation. More recently, insurance companies and employers are utilizing financial incentives to promote healthy behaviors among enrollees and employees.^{1–3} Incentivizing health behaviors is becoming more a more common health promotion tactic; however, existing research suggests that the acceptability of health care incentives is mixed.⁴

Background

The design of an incentive program may affect outcomes. Incentives that are universal, meaning available to everyone such as public education, rather than targeted, available only those who meet certain criteria such as a weight loss program for employees over a certain body mass

index, have been shown to be preferred by adults in previous studies.^{4,6} Disincentives, such as a penalty for unhealthy behaviors, can be effective but are generally unpopular and perceived as paternalistic and punitive.⁷ Additionally, there has been concern that incentives crowd out intrinsic motivation, choosing for the satisfaction of the decision.^{8,9}

Even with concerns around design and long-term effectiveness, financial incentives can be effective at producing behavior change.^{10,11} Previous research on the human papillomavirus (HPV) adolescent vaccination, which is not required by most school districts, has shown

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that a financial incentive can increase HPV vaccine uptake.^{12,13} Most of the research to date has focused on incentivizing adult health behaviors¹⁴ or adults making health care decisions for their young child.^{15,16} However, little is known about how parents perceive incentives directed at adolescent health behaviors.

In this study, HPV vaccination was used as a non-mandatory, adolescent health decision to explore parental thoughts around adolescent incentives. The objectives of this study were to explore parental attitudes around providing financial incentives for an adolescent health behavior and learn parent's acceptability of providing incentives directly to adolescents. This study asked questions about parents' view on HPV vaccination in general and their thoughts on economic incentives. Researchers were interested to learn what amount of incentive is appropriate for adolescents, if providing the incentive directly to the adolescent is acceptable for parents, and gather parents' concerns if any. Examining acceptability of incentives explores the translation from research to practice; if and how incentives can affect the public health issue of low vaccination rates.

Methods

Parents, grandparents, or legal guardians (hereafter referred to as parents) were recruited from a list of parents who enrolled their child into a clinical trial measuring the impact of a behavioral economic incentive on HPV vaccination rates in 2015.¹³ The trial offered a cash incentive to parents of adolescents (11-17 year olds) for completing the HPV vaccines series within 1 calendar year. Eligible parents were those who were English speaking, whose child was younger than 18 years of age at the time of the interview, and were listed as the legal guardian on adolescents' medical record. Parents were mailed letters explaining this study and informing them they would be contacted to participate. Parents were contacted up to 3 times via phone and/or email between January 2016 and April 2016.

The semistructured interview guide contained questions about parents' perceptions about cash incentives for adolescent HPV vaccine and in general. The interview guide had 15 main questions within 2 sections. The first section asked general background information about HPV vaccine (7 main questions), such as, "How familiar were you with the HPV vaccine before enrolling into the study?" and "What influenced your decision to vaccinate your child against HPV?" The second section focused more on the research focus on economic incentives. It contained 6 main questions, such as, "Tell me about any experiences you have had with being provided cash or other incentives for healthcare behaviors"

and "What do you think about being provided cash for health decision making?" (see Appendix A for full interview script, available online). Additional unique prompts were asked in response to interviewee's responses. Each interview lasted between 30 minutes and 1 hour (the average being 45 minutes). Parents were asked questions about personal experiences with health-related incentives in the past and acceptability of cash incentives for vaccination and health behaviors in general. Parents were asked if/when an adolescent should be given the incentive directly, versus given to the parents, and what financial amount is appropriate. A small compensation of a \$25 gift card was mailed to parents after successful completion of the interview.

Ethical Approval and Informed Consent

This study was approved by the University of Illinois at Chicago Institutional Review Board Protocol #2013-0457. Revisions were made to our institutional review board to include additional information on this qualitative study in 2015. The revised application was approved on October 14, 2015. All eligible parents were mailed and emailed copies of the study overview and consent form prior to participation. For participating parents, verbal consent was audio-recorded after a description of the consent form was read aloud. The decision to audio-record consent was to decrease the burden on parents from having to mail in a consent form or travel for an in-person interview. Researchers verified via phone that parents had received a copy of the consent form and re-mailed a copy if they had not. All research personnel on this project completed HIPAA (Health Insurance Portability and Accountability Act) and CITI (Collaborative Institutional Training Initiative) training and certification per university requirements.

Interviews were audio-recorded and transcribed verbatim. Grounded theory informed this project's framework. Grounded theory is a direct but open-ended approach that is not about testing hypotheses but for looking for emerging theories and relationships that shed light on a problem.^{17,18} For this study, grounded theory was utilized by not developing a codebook beforehand. Researchers went through the qualitative data text to identify codes that capture the speaker's meaning. Coding is the systematic categorizing or indexing of text segments. All coding disagreements were resolved through in-person discussion. Both researchers were involved in the development of the codebook. The first 3 interviews were coded by both researchers in Dedoose 7.0.23.¹⁹ Interrater reliability tests were conducted in Dedoose to calculate a Cohen's κ for 10 select codes. Last, the codes were analyzed for

Table 1. Characteristics of Interviewed Parents (n = 26) and Their Adolescent(s) (n = 27).

	N	%
Parental role		
Mother	22	85%
Father	2	7.5%
Grandmother	2	7.5%
Parent's self-identified race/ethnicity		
African American/Black	21	81%
Latino/Hispanic	4	15%
Other	1	4%
Parent's self-identified highest level of education		
Some high school	2	8%
High school graduate	6	23%
Some college	4	15%
Bachelor's degree	7	27%
Master's or PhD	7	27%
Adolescent information (N = 27; one parent had 2 children in the original economic study)		
Completed 3-dose HPV series within 1 year (successful completion of HPV economic incentive study)		
Yes	11	41%
No	16	59%
Sex of adolescent		
Female	15	56%
Male	12	44%
Age of adolescent, years		
11	10	37%
12	0	0%
13	7	26%
14	7	26%
15	3	11%
Adolescent's health insurance type (at time of interview)		
Public	12	44%
Private	15	56%

Abbreviation: HPV, human papillomavirus.

themes existing within common responses from parents. Themes are the organization of codes into larger categories, which summarize what codes have shown within the text-based qualitative data.²⁰

Results

Sixty-four parents were contacted to participate in this study. In total, 26 parents completed the interview (Table 1) for a response rate of 41%. Of the 38 parents who did not participate, 13% stated they were not interested, 13% failed to respond after they agreed to schedule an interview, and 74% failed to respond. The majority of the sample were mothers, had some college education or greater, self-identified as African American, had a female adolescent child, and had not completed the previous

behavioral economic trial (child had not completed HPV vaccine series within 1 year). The greatest proportion of adolescents were aged 11 years (37%) with a mean age of 12.7 years, and our sample was evenly split between public and private insurance providers (44%, 56%, respectively; Table 1). The codebook was developed and refined resulting in a final code book with 34 codes. The 34 codes were described with 1 of 12 category headings, which were sorted into 4 overarching themes (see Appendix B for full code list, available online). Researchers scored a Cohen's κ of 0.91 after assessing for interrater reliability after the first 3 interviews.

Theme 1: Diversity of Opinion in Who Should Receive Incentive: Adolescent or Parent

There was a diverse array of parental opinions on who should receive cash incentives (Table 2). More than half (58%) of parents stated that the research incentive should be given directly to the participating adolescent. This trend stayed constant even across different parental levels of education, which is typically used as a proxy for socioeconomic status (see appendix C, available online). The most common reason cited was that the individual participating in the research study deserves the earned incentive. Parents also mentioned several additional benefits to providing an adolescent the incentive. For example, cash incentives would motivate adolescent health behaviors or help overcome an adolescent's fear of a behavior (ie, pain from a vaccine [Table 2]).

Fifteen percent of parents stated the incentive should be split between parents and adolescents since both had to be involved in the research process. Some parents (15%) expressed ambivalence about who receives the incentive, and the most common reason cited is that the funds would benefit the child regardless of who (parent or adolescent) received the incentive. A minority (12%) of respondents stated that the parent should always be provided cash incentives for research because the funds should be for the whole family, parents must control their child's spending, and that adolescents often lack fiscal responsibility (Table 2).

Theme 2: More Agreement Over Ideal Age Than Ideal Amount for Adolescent Cash Incentives

Parents were asked open-ended questions about when adolescents could begin receiving a cash incentive. Parents were encouraged to provide a number that came to their mind. Over half of parents (58%) stated adolescents can begin to be provided with a cash incentive starting between the ages of 10 and 13 years. The most

Table 2. Diversity of Opinion on Who Should Receive Economic Incentives.

Incentive should be provided to adolescent (n = 15, 58%)

Whoever receives the vaccine should get the incentive

“I think the money should be given to the child. If the child is the one who is getting the shots, that is the one who should get the money.”

Incentives motivate children to remind parents

“I think you should give it to the child. It gives them an incentive to remind their parents to go back.”

Overcome adolescent’s hatred of shots

“I gave it directly to my child because I just wanted to let her see and to understand the importance of being on time with things. And keeping forward on things like [this HPV vaccine]. One of the ladies [researchers] came to us before she turned 11 so she [her daughter] was looking forward to getting the \$50 for herself. And that kind of encouraged her into taking shots. She hates getting shots. But she knew she had the \$50 coming after the third one so she got them no problem.”

Incentive should be provided to parent (n = 3, 12%)

The funds should be for the whole family

“Responsible parents are going to take the money and do whatever—let’s say the use the money to buy groceries the child still benefits from it. It’s not like parents would use to buy themselves a piece of cheap jewelry or something! What can you buy with \$50?”

Parents should guide child’s spending

“With \$50, you can drive your child to the store and they can get anything they want, and you will be watching what they are spending the money on. If it’s more money, I can help watch where it is being spent.”

Children lack financial understanding

“A [large amount] shouldn’t be given to the child all at one time since children don’t know how to spend money. They spend it on foolish things. So I think that you could minimize the amount of money that they are spending even though you are going to give them all the money, you’re not giving it to them all at one time.”

Incentive should be provided split (n = 4, 15%)

Both parent and adolescent actively participated in the study

“I’m the parent who had to allow the child to do it and I’m using my gas and time so there is a reward for me to buy me some extra coffee or doughnut. And because the child was the individual who was going through the study let them get the other portion. I can’t say the parent or the child. I say it should be shared.”

No opinion (n = 4, 15%)

Parents will spend the money on the child anyways

“[Who gets the incentive] really does not bother me either way! [laughs] If it was given to her or me it’s the same thing to me because most likely I’ll use the money for something for her. It doesn’t bother me either way.”

Abbreviation: HPV, human papillomavirus.

common reasons for citing ages 10 to 13 years or older included adolescents would have developed an understanding of the concept of money, may be responsible enough to manage money, and can understand the how and why research projects are conducted.

There was more consensus over the ideal age than ideal incentive amount for adolescent cash incentives. Parents expressed concern that there must be a limit to the amount that should be provided to children (Table 3). However, parents were split as to the optimal incentive amount to be provided directly to an adolescent. Seven parents (27%) preferred \$50 or less as the ideal amount for a financial incentive for adolescents, 7 (27%) preferred \$100 to \$200, and 5 (19%) preferred anything under \$500 depending on the type and length of the study (Table 3). The remaining 7 parents (27%) stated it did not matter to them since they are always around to monitor their child’s spending or that the money should always be provided to the parents.

Key Theme 3: Parental Caveats: Consider Child’s Maturity, Monitor Adolescent Spending for Large Amounts, and Parents Worry About Their Children Being Exploited by Incentives

Parents discussed many discretionary factors that would need to be considered for an adolescent to receive a cash incentive. Many parents mentioned feeling comfortable with a cash incentive being given to an adolescent; however, they expressed that they worry this would enable researchers to cut parents out of the conversation and potentially exploit adolescents’ behavior. Parents also expressed the need for an adolescent’s maturity level to be considered before given cash. Parents stressed that children mature at differing rates. Many parents specified that larger amounts, for longer research studies, that include adolescents would need distribution considerations such as putting the money into a saving account

Table 3. Ideal Adolescent Age, Ideal Incentive Amount, and Discretionary Factors to Consider.*Most appropriate age for incentive*

Increased capacity for understanding money and research at this age

"I think 11 is fine. At an earlier age, they don't really know or understand the amount or value of the money. At 11 you know what a dollar is, what 5 dollars is, what 10 dollars is."

Increased responsibility at this age

"There are some kids under age 10 that are responsible enough to get the money but I feel like they should be older than 10 to get the money."

Appropriate amount for incentive

"You know \$50 is a lot so that would probably be my limit. Anything over that is almost like bribery. It's like 'I'm going to give you \$100 if you take these 3 shots!' [said in an evil, tempting type of voice]. Versus \$50 is a lot so it's like hey you get these injections, this is what it's for, and this is something to reward you for being brave, for being knowledgeable, and for accepting something that could protect your health."

"I wouldn't want him to do it specifically for the cash. If it is more than \$500, I think people would do it for the money and not for the actual health benefits."

Parental caveats: elements of discretion for providing incentives to adolescents

Amount should be based on the child's maturity

One parent stated, "It depends on the kid. Like my 12-year-old I don't think he should ever receive \$50. He's not . . . it's more than enough for him. So, it really depends on the kid and their intellectual level and their level of responsibility. Now when my daughter was 12 she could have received 50 and be responsible with it. But my little boy just doesn't understand the value of it yet. So, it depends on the kid."

A need to monitor adolescent's spending

"If there is a lot of money the parents should have more control. Incentives of \$500 or more parents need to help children learn how to save it or make some kind of investment. They need help [managing a larger amount]."

Need to keep parents in the discussion

"I don't have a problem with it [researcher providing the adolescent with the incentive directly] as long as the communication is with the parent. It would really awkward having some random adult communicating with my child about exchanging dollars. That wouldn't be appropriate for me."

or bond (Table 3). Only 3 parents (12%) had previous experience with an economic incentive related to health care and 2 expressed negative opinions because of the punitive nature of their experience. None of the parental concerns were related to the incentive structure of behavioral economic incentive study design in which they had participated.

Theme 4: Positive Perceptions of Cash Incentives for Research

One of the most common themes to emerge from the interviews was parents expressing positive attitudes toward the concept of research incentives (Table 4). Parents expressed positive remarks that an incentive reimburses the family for their time and effort, the acknowledgement that providing small incentives for parents could provide large health rewards for their adolescent, and that incentives allowed adolescents to learn about money, health decision making, and research practices. A common theme was that "money motivates behavior." Parents felt research was a necessary and anticipated part of seeking care at an academic medical center. Only 2 parents expressed negative perspectives on incentives for research, commenting that too much

money could constitute bribery and that parents should be motivated by positive health outcomes alone rather than money.

Discussion

To our knowledge, this study is one of the first to explore parents' perspectives of financial incentives for adolescent health behaviors. Parents were supportive of research involving adolescents and providing incentives directly to the adolescent, assuming the adolescent was mature enough to manage the money. Our findings are in line with others that have found providing incentives for health care an acceptable practice.^{6,21} Parents expressed that they wanted to remain involved in health care decisions and the financial incentive process even if the incentive is provided directly to the adolescent. Having parents of adolescents identify the incentive recipient at time of consent could be one way of operationalizing how to best provide incentives for adolescent research. This would allow the parents the opportunity to consider their child's maturity and fiscal responsibility and decide if the cash incentive should be provided to the parent or child.

In general, researchers were concerned that families who receive care from an academic hospital may feel

Table 4. Parents Global Perspectives on Cash Incentives for Research.

Positive statements about incentives for research (n = 20, 77%)

Promotes positive, long-term health outcomes

“\$50 cash seems like a minimal price to help engage individuals in their own health.”

Reimburses family for their time

“Generally, a large amount of people that participate in teaching universities are usually . . . they have a difficult time maintaining their lifestyle on a basic level. [laughs] So the research surveys or research studies kind of help them out here and there, now and then to allow them to splurge you know? For the kids or whoever and or for themselves. And when I say splurge, I’m talking about maybe going out to dinner rather than cooking dinner at home or trying to get the groceries to cook the dinner.”

Overcome parents’ vaccine ambivalence

“Many parents may be on the fence [about the HPV vaccine]. The incentive could allow them to hear more information and details about the vaccine and may encourage them to move forward with it.”

Money motivates behavior

“Some people will not participate unless you are giving them a little incentive.”

Promotes adolescent’s learning

“The child should gain *knowledge* about this vaccination. What are the advantages of getting it? What is a vaccination even? He wanted to know the biology of it. It is educational project! It’s a valuable process for the child. To see their own efforts, they can learn a lot of things: why they got the money, when they have the money, how to use it. Even with this small amount of money, children can learn much. With such a small amount, there is no point for the parents to keep the money. But for the child that can be a great educational process.”

Abbreviation: HPV, human papillomavirus.

over studied; however, parents were overall positive about the benefits of research and research financial incentives. Generally, this finding goes against existing literature stating that families, especially racial minorities, are weary of participating in research within their academic medical centers.^{22,23}

There are several limitations with this study. The most major limitation is that this study’s sample is a subset of parents who voluntarily participated in a previous research study. No data were gathered on the parents who declined to participate so it is unknown if they differ greatly from those who participated. Parents interviewed for this study had already opted into an HPV vaccination incentive study, so they may have a higher level of acceptability of incentives than the general public. Additionally, this study sample is highly educated (69% at least some post-high school education) and a less formally educated group may have responded differently. Parents’ socioeconomic status could affect their views on who should receive an incentive; however, in this study, we only had parental educational level, which may not be an accurate portrayal of socioeconomic status. Furthermore, this sample was predominantly African American mothers and the findings may not be generalizable to other populations. Since this study focuses on 2 potentially stigmatized topics, adolescent health and money, social desirability could be a limitation. There could have been nonresponse bias, those who responded to the phone interview may hold different views than those who did not respond. Only 3

interviews were studied for interrater reliability. Last, only parents were chosen to be interviewed since they consented to the original study. Further study should be conducted to gather adolescent perspectives.

Though many incentives are linked to research, incentivizing health behaviors is becoming more common among health insurance companies and employers.¹ Health insurance companies, hospitals, or state or national governments are all entities that could leverage economic incentives for preventive health care. There is precedent for a nationwide tax incentive for parents once their child has been fully vaccinated in Australia.²⁴ Additionally, more research is needed to determine if the cash incentive amount and/or recipient creates statistically significant differences in health outcomes when promoting health behaviors.

Conclusion

This study suggests acceptability among parents for providing incentives directly to adolescents for health behaviors. The largest percent of parents felt the incentive should be provided directly to the adolescent starting at age 10 years, if the parent feels the child is fiscally responsible and the incentive amount is appropriate (under \$50). However, more research needs to be conducted to verify if this is a sustainable and effective long-term intervention for some health behaviors. A systematic scan could be done to contact health care organizations to see if incentives are being offered and measure their

effectiveness in practice. A large hospital system or state policy could pilot different incentive amounts for families who have fully immunized their children. A balancing measure would need to be studied to verify the incentive programs are not causing unintended effects. Further research with adolescents could elicit their thoughts around economic incentives to see if they differ from parents. The findings from further study can help inform programs in hospitals, lawmakers, and health insurance companies who are considering incentives for adolescent health behaviors.

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Author Contributions

Both KMB and RC had full access to all the study data and take responsibility for the integrity of the data. RC conceptualized the study and design. KMB acquired and analyzed the data. Both Beskin and Caskey were responsible for the interpretation of data and drafting of the manuscript.

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Supplemental Material

Supplemental material for this article is available online.

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