

Perception toward hand washing among caregivers in Thai household with influenza infected child, Bangkok, Thailand: A qualitative study

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Background : *Perception toward hand washing in relation to respiratory infection among caregivers has not received adequate attention. Caregivers' perception can help facilitate hand washing behavior in households and may reduce influenza transmission in communities.*

Objectives : *To describe the perceptions toward hand washing, household's barriers and to persuade hand washing in preventing respiratory infection among caregivers responsible for administering full-time care to influenza infected children.*

Methods : *A sampling technique was applied to select caregivers caring for an influenza infected child. An in-depth interview and observation were conducted at each participant's house between November 2008 and May 2009. The methods elicited details on perception of benefits and barriers of hand washing, educational approaches to promoting hand washing and availability of hand washing facilities. Content analysis was applied to analyze the data.*

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- Results** : *Twenty-five caregivers were interviewed. The majority (24/25) were female and ranged from 22 to 47 years of age. Half of the caregivers (13/25) work outside their home and contributes toward the household's income. Findings supported caregivers' knowledge that hands carry germs and transmit diseases. They recognized that hand washing as the most economical preventative practice in preventing diseases. However, they reported washing their hands only on occasions that are related to diarrheal disease prevention. Barriers in adherence to hand washing amounted to being busy, in a hurry, unaware, forgetfulness and inconvenient. Participants disclosed that their children aged 7-15 were unaware of the benefits. They knew that hand washing promotion utilizing one-on-one demonstrations, poster reminder and positive reinforcement could help to change this perception and promote frequent hand washing among their children.*
- Conclusion** : *This study demonstrated that caregivers are aware of the benefits of good hand washing practices but only when it is applied to preventing gastrointestinal tract infections. Children aged 7-15 years in these households were unaware of the benefits and needed intensive hand washing education.*
- Keywords** : *Perception, Hand washing, Caregivers, Households.*

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- ปัญหา/เหตุผลของการทำวิจัย** : การศึกษาการรับรู้เกี่ยวกับประโยชน์ของการล้างมือในการป้องกันโรคในระบบทางเดินหายใจในกลุ่มผู้ดูแลสุขภาพในครัวเรือนยังไม่ได้ได้รับความสนใจเท่าที่ควร ซึ่งกลุ่มนี้จัดเป็นกลุ่มที่มีความสำคัญในการส่งเสริมและอบรมพฤติกรรมการล้างมือให้แก่สมาชิกในครัวเรือน ดังนั้นการศึกษาเรื่องการรับรู้เกี่ยวกับการล้างมือในกลุ่มนี้จึงน่าจะเป็นประโยชน์อย่างยิ่งในการส่งเสริมพฤติกรรมการล้างมือเพื่อลดการติดเชื้อ และแพร่กระจายเชื้อโรคในระบบทางเดินหายใจในครัวเรือน ตลอดจนอาจจะช่วยลดอัตราการแพร่กระจายเชื้อโรคไข้หวัดใหญ่ในชุมชนได้
- เป้าหมาย/วัตถุประสงค์** : เพื่ออธิบายการรับรู้เกี่ยวกับประโยชน์ของการล้างมือในการป้องกันโรคในระบบทางเดินหายใจในกลุ่มผู้ดูแลซึ่งมีหน้าที่หลักในการดูแลเด็กป่วยโรคไข้หวัดใหญ่
- ประเภทโรงพยาบาล** : ครัวเรือนในเขตกรุงเทพมหานคร โดยคัดเลือกมาจากสถานสุขภาพเด็กแห่งชาติมหิดลราชินี
- รูปแบบการวิจัย** : วิจัยเชิงคุณภาพ
- วิธีการทำวิจัย** : ใช้เทคนิคการสุ่มเลือกผู้ดูแลเด็กป่วยโรคไข้หวัดใหญ่ เพื่อทำการสัมภาษณ์แบบ เชิงลึก และสังเกตสิ่งแวดล้อมภายในครัวเรือน โดยดำเนินการวิจัยที่บ้านพักของอาสาสมัครระหว่างเดือนพฤศจิกายน 2551 ถึงพฤษภาคม 2552 แบบสัมภาษณ์เชิงลึกและแบบสังเกตประกอบด้วยคำถามเกี่ยวกับการรับรู้ ประโยชน์ อุปสรรค วิธีการส่งเสริมพฤติกรรมการล้างมือ ตลอดจนอุปสรรคที่จำเป็นสำหรับการล้างมือภายในครัวเรือน สรุปผลการศึกษานี้ใช้วิธีการวิเคราะห์เนื้อหา

- ผลการศึกษา :** ได้ทำการสัมภาษณ์ กลุ่มผู้ดูแลเด็กป่วยไขหวัดใหญ่ จำนวน 25 คน ส่วนใหญ่ (24/25) เป็นเพศหญิง มีอายุระหว่าง 22 ถึง 47 ปี ประมาณครึ่งหนึ่ง (13/25) ทำงานนอกบ้านเพื่อหารายได้ เข้าครัวเรือน ผลการศึกษาพบว่าผู้ดูแลมีความรู้เกี่ยวกับมือ เป็นพาหะนำเชื้อโรค และรับรู้ว่าการล้างมือเป็นวิธีที่ ประหยัดที่สุดในการป้องกันโรค อย่างไรก็ตามพบว่า การ ล้างมือของกลุ่มนี้สัมพันธ์กับการล้างมือเพื่อป้องกันโรค ท้องเสียเท่านั้น อุปสรรคในการล้างมือที่พบบ่อยในกลุ่ม สมาชิกครัวเรือนกลุ่มนี้ ได้แก่ ลืม เร่งรีบ ไม่ตระหนักถึง ความสำคัญ และความไม่สะดวก นอกจากนี้อาสาสมัครกลุ่ม นี้ยังรายงานว่าเด็ก ๆ อายุระหว่าง 7 - 15 ปี มักจะไม่ค่อยเห็น ความสำคัญและประโยชน์ของการล้างมือเพื่อป้องกันโรค และได้เสนอแนะกลวิธีที่อาจได้ผลในการส่งเสริมพฤติกรรม การล้างมือ ได้แก่ การสาธิตขั้นตอนการล้างมือ การติดโปสเตอร์ เพื่อเตือนให้ล้างมือบ่อย ๆ ตลอดจนการให้รางวัลน่าจะช่วย ส่งเสริมความถี่ในการล้างมือโดยเฉพาะเด็ก ๆ ในครัวเรือน กลุ่มนี้ได้
- สรุป :** กลุ่มผู้ดูแลเด็กป่วยไขหวัดใหญ่รับรู้เกี่ยวกับประโยชน์ของการ ล้างมือในการป้องกันโรค แต่การปฏิบัติสัมพันธ์กับการป้องกัน โรคท้องเสียเท่านั้น เด็กกลุ่มอายุ 7 - 15 ปี ไม่เห็นความสำคัญ และประโยชน์ของการล้างมือ จำเป็นต้องได้รับการสอนอย่าง เข้มข้น
- คำสำคัญ :** การรับรู้, ล้างมือ, ผู้ดูแลเด็ก, ครัวเรือน.

Perception of hand washing in relation to respiratory tract infection among caregivers has not received adequate attention even though caregivers' perception can create an influence over a child's health.⁽¹⁻³⁾ Caregivers can also play an imperative role in helping model behavior patterns in a household, therefore clarification of their perception in lowering barriers are essential in promoting good hand washing practices.^(4,5) Applying an appropriate approach that meets the needs of a household and specific to their circumstance can alter their perception and can help modify hand washing practices to facilitate a successful reduction in transmission of respiratory virus including influenza.⁽⁵⁾ Therefore, this study is aimed to describe the perceptions of hand washing, household's barriers in order to persuade hand washing for prevention of respiratory infection among caregivers who are responsible for administering full-time care to influenza infected children.

Materials and Methods

This study was conducted within the context of an ongoing non-pharmaceutical intervention (NPI) to reduce influenza transmission. The investigators conducted in-depth interviews and observation during November 2008 to May 2009 at participant's houses. A sampling technique was applied to select caregivers providing care of the child's health and administering full-time care to a laboratory confirmed influenza infected child in the household. Twenty-five caregivers were interviewed for approximately 20 - 25 minutes before receiving hand washing education. Prior to this, permission to conduct the interview, including tape recording, was obtained. The interviews elicited details of perception on the

benefits and barriers of hand washing as well as effective approaches to promote hand washing. The interview question guide was validated by public health experts and pre-tested using two caregivers. The observation checklist explored the number of hand washing station with running water tap and availability of soap and water. Content analysis was applied to analyze the data from the interviews by 3 steps: transcribing the responses from a tape recorder, coded and categorized key words. The analysis was calculated using a computerized (Microsoft Excel) program.

Results

Characteristics

Of the 25 caregivers, 24 were female with an average age of 34 years (SD 7.3) and ranging from 22 - 47 years of age. The mean years of education were 9.9 (SD 3.5) and the median number of members in a household was 3, and ranging from 3 - 13 members. Half of the caregivers (13/25) worked outside their home and contributed to the household's income. The children in their household age ranged from 6 months to 15-year-old. The participants who had children under < 6 years of age hired work at home such as laundering and tailoring. The household income was ranged 6,000 - 40,000 baht/month. A majority (24/25) of the participants lived in a single family consisting of 3 members.

Perception toward benefits and barrier of hand washing

All participants perceived that hand washing is essential in reducing germs and minimizing diseases transmission. Seven of twenty-five of

participants knew that hand washing can prevent colds and influenza. In addition, they stated that the most frequent barriers to hand washing among their family members were forgetfulness, unawareness, being busy, in a hurry and inconvenient (Table 1). All participants admitted to hand washing before eating and after visiting the toilet in an effort to prevent diarrhea, and they washed their hands with soap

about 3 -10 times a day. Participants who work as food vendors or were employed in garment factories said they washed their hand approximately 6 - 10 times a day. A majority of participants admitted of being unaware of the proper techniques and duration of hand washing. They washed all areas of the hands until they were visibly clean; this process took 30 - 60 seconds (Table 2).

Table 1. Perception toward hand washing among caregivers from in-depth interviews (n = 25).

Perception	N (%)
Positive perception toward hand washing in preventing diseases	
Diarrhea	25 (100)
Cold and influenza	7 (28)
Other diseases such as eye infection, skin infection	7 (28)
Perceived that hand washing facilities in household are convenient	24 (96)
Member's perception toward benefits of hand washing	
Adult in household were aware of benefits in preventing diarrhea	25 (100)
Children aged 7-15 were unaware of benefits	14 (56)
Barriers to hand washing among their members	
Unawareness	8 (32)
Being busy/in a hurry	4 (16)
Inconvenient	1 (4)

Not all participants responded to each response

Table 2. Reported hand washing practice among caregivers (n = 25).

Hand washing practice	
Average frequency of hand washing with soap in a day (median, min-max)	4 (3-10)
Duration of hand washing with soap (ranging in seconds)	30-60
Occasions for hand washing (No. of participants)	
Before and after eating/food preparation	25
After visiting the toilet	25
Others such as hands obviously get dirty/ hands are wet with sweat etc.	10
No. of participants aware of proper technique of rubbing hands	3

Not all participants responded to each response

A caregiver aged 24 years spoke, “Hand washing is important. It removes dirt and reduces germs and I strongly believe that if we wash our hands frequently, we can avoid diarrhea and colds.”

Member’s perception toward benefits of hand washing

More than a half of the participants who had children aged between 7 - 15 years in the household disclosed that their children were unaware of the benefits of hand washing because they noticed that their children failed to wash their hands before eating or after visiting the toilet. However, they perceived that adults in their household recognized the benefits of hand washing in preventing diarrheal diseases and that adults washed their hands before eating and after visiting the toilet (Table 1).

Effective Approach to promote good hand washing practice in household

Participants believed that to intensive hand washing promotion can increases the awareness of benefits among children. The examples of the

responses to an educational approach to their family members are shown in Table 3.

Availability of hand washing facilities

Most of participants perceived that hand washing facilities should include a sink, running water, soap/detergent and a clean towel which should be convenient and in adequate supply for each household. They stated that hand washing supplies such as soap and clean towel were always available in their household. We observed that a majority of households had at least 2 - 3 hand washing stations. These hand washing stations were located in the bathroom, kitchen and foyer (front door) of the house. Hand washing stations in the kitchen were identified as the most convenient and mostly used (Table 1).

A caregiver, aged 40, explained, “My family has 5 members, and there are 3 hand washing stations in my household including two sinks in the bathroom located on the 2nd floor and one sink in the kitchen. I always provide soap and a change of towels every week and I think this is enough and appropriate for my family.”

Table 3. Responses with regard to educational approach to family member.

Approaches	Example of Responses
Practice	“My child is 3 years old. I need to get her to wash her hands”
Face-to-Face Demonstration	“My kids are stubborn; they need to be told. I think that if they have been repeatedly educated and trained, they would probably wash their hands more often”
Verbal Reminder	“My sons ignore hand washing. I always have to tell them before sitting down to eat”
Poster Reminder	“I would like to have a poster of hand washing and post it in the kitchen to remind my sons about hand washing”
Positive Reinforcement	“I promised my kid a favorite toy if she would regularly wash her hands before eating”

Not all participants responded to each response

Discussion

The finding indicates that Thai family caregivers, who are responsible for administering full-time care to the influenza infected children, are aware of the benefits of good hand washing practices, but only when it is applied for the prevention of gastrointestinal tract infections. This finding correlates with public health publicity that diarrhea is a major cause of deaths in young children.⁽⁶⁾ This might have created more of awareness and motivation for hand washing in diarrhea prevention.^(7, 8) Barriers to hand washing that were reported by the participants were found to be comparable to findings in prior studies.⁽⁸⁻¹⁰⁾ This finding has proved that the lack of hand washing facilities is a major barrier to hand washing. Additionally, caregivers perceived that adults in their households supported the concept and benefits of hand washing unlike their children. Based on caregivers' experiences in the learning of hygienic practices; they perceived that effective educational approaches such as practicing, face-to-face demonstration, verbal reminder, poster aide and positive reinforcement were effective in promoting hand washing to their family members. Furthermore, a combination of these instructive methods and an enhanced active participation in hand washing promotion at the individual level could aid in an increased awareness of the benefits and promote frequent hand washing among children age 7 - 15. This finding concurs with studies that applied a combination of approaches in the programs which were successful in promoting hand hygiene to reduce illness transmission in the home and decrease absenteeism in school.^(11, 12)

Conclusions and recommendations

Caregivers should be motivated to practice hand washing for the prevention of respiratory infection. This action can be achieved through an intensive hand washing training program that includes the entire household members. Hand washing education that utilizes visuals and hands on demonstration needs to be regarded as an important tool to promote hand washing for the prevention of respiratory tract infections. In addition, the advantages of hand washing can only happen if hand washing facilities, including adequate supplies for the household members are readily available.

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