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The present study examines the outputs and qualities of the thirteen teen pregnancy service hotlines in Taiwan that were funded by the Children’s Bureau in 2004 and 2005. The evaluation was made through agency visits,
focus groups, document reviews, call-in tests and the use of a management information system. The results show that the average number of calls was low, and one agency did not receive any calls during the time period examined. The quality of services varied, and the advice provided by the hotline staff was influenced by the value orientation of the agencies. Most callers were adult women, and the major services they received were information and emotional support. The service characteristics were heavily affected by the goals and routine tasks of the agencies as certain agencies applied their existing services to the program without assessing their fitness to the needs of the potential clients. Suggestions for service improvement are provided, including an islandwide hotline to be set up and operated by a single agency with high accountability. Implications for program monitoring and documentation, staff training and knowledge-sharing, and service advertisement and promotion are also discussed.

Keywords (separated by '-')  Adolescents - Teenage pregnancy - Service hotline - Performance evaluation

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A Multi-Method Evaluation of the Teen Pregnancy Hotline in Taiwan

Hsi-sheng Wei · Li-hsin Chen · Hsiu-chih Su · James Herbert Williams

Abstract The present study examines the outputs and qualities of the thirteen teen pregnancy service hotlines in Taiwan that were funded by the Children’s Bureau in 2004 and 2005. The evaluation was made through agency visits, focus groups, document reviews, call-in tests and the use of a management information system. The results show that the average number of calls was low, and one agency did not receive any calls during the time period examined. The quality of services varied, and the advice provided by the hotline staff was influenced by the value orientation of the agencies. Most callers were adult women, and the major services they received were information and emotional support. The service characteristics were heavily affected by the goals and routine tasks of the agencies as certain agencies applied their existing services to the program without assessing their fitness to the needs of the potential clients. Suggestions for service improvement are provided, including an islandwide hotline to be set up and operated by a single agency with high accountability. Implications for program monitoring and documentation, staff training and knowledge-sharing, and service advertisement and promotion are also discussed.
Keywords  Adolescents · Teenage pregnancy · Service hotline · Performance evaluation

Introduction

The social environment and cultural values in Taiwan have undergone rapid changes in recent years. Young people reach physical maturity earlier, and their sexual attitudes and practices have become increasingly open. The Department of Health has conducted large-scale surveys on senior high and vocational school students in Taiwan and found in 2000 that 49% of respondents held an affirmative attitude toward premarital sex, a result markedly higher than the survey result of 39.7% in 1995 (Lin 2002). The percentage of sexually experienced male students more than doubled between 1983 and 2000, from 5.9 to 14.0%, and the percentage of sexually experienced females leaped from 1.0 to 10.4% in the same time period. Moreover, the 2000 survey also found that 30% of the adolescents who had had sexual experiences rarely or never used birth control (Lin 2002). A more open attitude toward sex, increase in sexual behavior, and low levels of contraception use have all contributed to the problem of teen pregnancy in Taiwan (Ren 2003). In 2005, the pregnancy rate of girls age 15–19 in the United States was 4.05 per thousand (Hamilton et al. 2007), while the rate was 8 per thousand for Taiwanese girls (Ministry of the Interior 2006), almost twice as high that of as their American peers. Therefore, teen pregnancy is a significant issue in Taiwan that needs to be addressed.

Adolescent girls have not fully reached physical and mental maturity and often lack sufficient gynecological knowledge. These factors may result in negative consequences for pregnant girls, whether they decide to give birth or to abort the pregnancy. If the girls decide to go through pregnancy and give birth, complications may occur in both the mother and baby because the mothers’ bodies are still developing. They also tend to pay little attention to prenatal care and have fewer examinations, insufficient nutrition intake, and a higher rate of substance abuse than other expectant mothers (Fraser et al. 1995; MacFarlane 1995). In addition, pregnant teenagers will face issues in areas of education, finance, marriage, and child care. The scope of the problem and the considerable social cost call for more governmental and public attention.

In response to the teen pregnancy issue in Taiwan, in 2004 the Children’s Bureau began funding local agencies to provide “Consultation on Gender Relationship and Premarital Pregnancy Services” (CGRPPS), with one of the major tasks being to establish consultation hotlines for teenagers. However, the service content and output of local hotlines have rarely been examined, and little data exists regarding their quality and professionalism. In order to understand the process and outcomes of CGRPPS, the present study targeted the 13 agencies that received financial support from the Children’s Bureau during 2004–2005 and evaluated their consultation hotline services through a multi-method approach. By undertaking this research, we hope to enhance the planning and delivery of relevant services to pregnant Taiwanese youth.
Pregnant teenagers are high-risk gynecological cases with possibilities of low birth weight, preterm delivery, and malformations (Gortzak-Uzan et al. 2001). The pregnancy experience often impacts the psychological development of teenagers as well. Pregnant teens often experience significant family dysfunction, stress and poor communication with their parents (Corcoran 2001). The self-centered characteristic of adolescents, their swings between independence and dependency, and their emotional instability and impulsive behaviors are barriers to their being competent caregivers. Pregnancy and giving birth further complicate their unstable psychological condition. They perceive more stress than adult mothers when parenting the child (Turner et al. 1990) and have lower self-esteem and higher depression rates (MacFarlane 1995). Research shows that the pregnant teenagers in Taiwan who decide to keep their babies often hope to get married and have the child born in wedlock (Lee et al. 1997). If that happens, the teenage mother then needs to deal not only with the child and her own issues but also with adjusting to marriage.

Teen pregnancy not only affects the mother’s physical and mental health but also leads to higher risk for the baby. Teenage mothers are more likely to have premature infants, and their newborns have increased risks of neonatal and postneonatal mortality (Olausson et al. 1999; Gillham 1997). Coley and Chase-Lansdale (1998) argued that the complications of teen pregnancy are not directly due to the mother’s physical immaturity but that factors such as socioeconomic status and medical resources influence the mother’s and baby’s physical health indirectly. With regard to child care, teenagers are often less skilled at maintaining intimate relationships and lack the skills needed for newborn care, which may lead to low self-efficacy and negative behaviors in developing the role of a mother. Porter (1990) suggested that teenage mothers’ common weaknesses in parenting include inflicting corporal punishment and abuse, insensitivity to the child’s physical and psychological needs, insufficient verbal interaction, lack of knowledge in infant development and inability to provide an appropriate learning environment at home.

Studies have found that almost 80% of married teen mothers divorce within 1 year after the child is born. Compared to adult women, teenage girls who are married have a higher chance of becoming single parents because of separation or divorce (Butler 1992; MacFarlane 1995). Their pattern of teenage pregnancy also seems to pass down to the next generation, since adolescent girls who become pregnant tend to come from mothers who themselves give birth during their teenage years (Seamark and Gray 1997); daughters of teen mothers have a 22% higher chance of becoming teen mothers themselves (Hotz et al. 1997; Moore et al. 1997). In addition, their children tend to have the same disadvantages as their mothers (Kahn and Anderson 1992) including slower development in their preschool years, greater likelihood of illness, and less likelihood of finishing high school before age 20. They show more problem behaviors and maladjustment in school and have a higher risk for delinquency and crime. The issues associated with teen pregnancy need to be recognized and addressed in order to improve the life conditions of the mother and child and to prevent the intergenerational repetition of the disadvantages that result.
Consultation on Gender Relationship and Premarital Pregnancy Services

The government and non-profit organizations in Taiwan have paid more attention to teen pregnancy and related social issues during the past a few years, and a number of social services have been proposed to address the problem. The Children’s Bureau, the unit of Taiwan’s central government in charge of child and youth welfare affairs nationwide, develops a variety of prevention, treatment, placement and follow-up services to assist pregnant teenagers through the hardships and facilitate the healthy growth of the mothers and children. “Consultation on Gender Relationship and Premarital Pregnancy Services” (CGRPPS) is one of the Bureau’s major programs in response to the issue of teen pregnancy, which funds local agencies to deliver services to pregnant youth.

CGRPPS was initiated in 2004 and funded 11 regions islandwide during 2004–2005. The central element of the program is the establishment of local consultation hotlines to provide a convenient way for adolescents and others to seek assistance. Trained staff members provide information and emotional support on pregnancy and birth issues through real-time conversations, and conduct consultations, group activities, parent education and follow-ups when needed. Promotional activities and materials are also funded. Under the Children’s Bureau’s program framework, individual agencies can design specific services based on their expertise and local needs. Strictly speaking, CGRPPS was not designed following the logic model approach as many experts would suggest (Page et al. 2009; Hulton 2007). Nonetheless, the CGRPPS framework reflected a recognition of the situation (the need of access to assistance), a calculation of the resource input (funding for setting up and operating the hotline), and expectations for certain output (number of calls received), which became the base of the present evaluation.

In the 11 regions funded during 2004–2005, 13 hotlines were set up and considerable diversity in program implementation, service patterns and effectiveness existed among those agencies. The social welfare policies in Taiwan have increasingly focused on service accountability and cost-effectiveness, and agencies are expected to develop services that are systematic, evidence-based, and efficient. Meanwhile, the overall performance of the CGRPPS program has not been addressed, nor have the major issues of the agencies regarding program implementation and service delivery, which constitute the research questions of this evaluation.

The Present Study

During the last 10 years, a number of relevant laws and policies have been undertaken in Taiwan that highlight the government’s interest in privatization and contracting out services. The subject of this study, the Consultation on Gender Relationship and Premarital Pregnancy Services, is one example of the government’s funding local agencies to provide services. Such practices may reduce the government’s ability to monitor welfare provision and causes problems with regard to service quality and performance (Mulgan 1997). As a result, service evaluation and cost-effectiveness analysis become important tasks in the field of social welfare.
Performance evaluation often involves the collection and analysis of data on the financial and human resource cost, quantity, outcome and impact of the service (Martin and Kettner 1996; Mullen and Magnabosco 1997; Martin 1998). In addition, the delivery process and service quality are also significant issues (Robson 2000; Rossi et al. 2003). A quality service must have few mistakes, high professionalism, prompt and adequate response, positive reputation and high client satisfaction. The process evaluation usually focuses on ongoing programs and aims at improving the service and enhancing its quality by collecting data from service documents and records and closely observing the program in action (Posovac and Carey 1997; Patton 1997).

However, considerable controversy exists around the validity of evaluation and cross-agency comparison. Tzou (2000) explained three major concerns. First, the welfare industry is unique in that the quality and outcome of its services are heavily influenced by subjective perceptions and unobservable effects. Second, each client has different needs, and the complexity of client issues varies, so it is difficult to have standardized service procedures or universal criteria for effectiveness. Third, heterogeneity among agencies and stakeholders often results in different focuses in evaluation and measurement. Given these disputes, uniform measurement for comparative purposes is a challenge, but clear documentation and presentation of service performance is still a desirable goal for governmental and private agencies in social welfare. In the case of this study, the Children’s Bureau outlined the funding framework of CGRPPS but left the actual content design to contracted agencies, which resulted in heterogeneous service patterns and highlighted the necessity of appropriate and concerted evaluation. This study therefore focuses on the 13 agencies that received the Bureau’s funding for CGRPPS during 2004–2005. One common element of CGRPPS, the consultation hotline, is targeted, and multiple methods are employed to examine its processes and outcomes. Data collection strategies consisted of documentation review, focus groups, site visits, test calls, and the implementation and trial of a computerized management information system. The results are analyzed quantitatively and qualitatively to identify the strengths and weaknesses among agencies. Specific suggestions for future practice design and policy making are provided. By doing so, this study hopes to shed light on the development of effective services related to teen pregnancy.

Methods

Sample

The subjects of this study are the 13 agencies islandwide in Taiwan that received funding from the Children’s Bureau for CGRPPS during 2004–2005. They are located in eleven areas: Taipei City, Taipei County, Taichung City, Taichung County, Kaohsiung City, Kaohsiung County, Yunlin County, Chiayi County, Tainan City, Hualien County, and Taitung County. Each agency established its own hotline number. A total of 13 hotlines were set up, including three in Taipei City. The majority of these agencies are oriented to children, adolescents and women,
although some specialize in telephone counseling. CGRPPS funding covered a
diversity of services and activities, but all agencies shared a same element of a
consultation hotline.

Data Collection

Documentation Review

The research team requested relevant documents from CGRPPS including the
proposals, case records and output reports from the Children’s Bureau and local
agencies. These files were examined both qualitatively and quantitatively to gather
information on the finances, processes, contents, and outcomes of the programs. By
qualitatively analyzing these documents, the researchers can get familiar with the
history of the CGRPPS services, the contexts of their development, and the fabrics
of their operation. On the other hand, quantitative data obtained were summarized
and basic descriptive statistics were computed. Due to the limited number of
agencies and the heterogeneities between them, the focus of the quantitative
analysis was to provide a clear description of the CGRPPS programs rather than to
make statistical inferences.

Focus Groups

Two 2-h focus groups were conducted during July 2005 in Taichung and Taipei.
The CGRPPS contracted agencies were divided into two groups (7 and 6) and their
social workers and staff members were invited to discuss issues related to the
performance evaluation of the program. The focus group method is an effective way
to accomplish the evaluation objectives of this study, which allows the participants
to have the opportunity to interact with each other and discuss the topics that are
relevant to their experiences (Miles and Huberman 1994). Such interaction can elicit
valuable information that may not come up in individual interviews.

On-Site Visit

The research team reviewed the self reports written by the agencies and then visited
the 13 agencies to collect detailed information on the program goals, service
content, personnel, internal and external resources, and service outcomes. By doing
so, the researchers not only can obtain a first-hand observation for the service site
but also can have face-to-face discussions with the agency staff to clarify the
questions raised from reading the documents.

Test Calls to Hotline

In order to have a more in-depth understanding of the service characteristics of each
hotline, test calls with 2 scripts were conducted during October 2005 after informing
the agencies. The themes of the 2 scripts were “hoping to have an abortion” and
“hoping to keep the baby.” Every agency received both kinds of calls, and the
conversations were recorded and transcribed for the research team to conduct qualitative analysis.

**Trial of a Computerized Management Information System**

In an attempt to help the agencies to do a better job of recording the incoming calls and to facilitate the evaluation, the research team gathered opinions from the agencies and developed a computerized system in Windows ACCESS format. The initial version was sent to the agencies for testing and was then revised based on the feedback. The new version of the system was again sent to the agencies for a 1-month trial use (October 14–November 14), and the records of the incoming calls were collected for analysis.

**Results**

**Input and Output of CGRPPS Hotline**

According to data from the program files and on-site visits, most agencies relied on the Bureau’s funding as the single financial source to operate the program. Among all items of funding, the largest amounts of money went to setting up the hotline (buying computers, file cabinets, etc.) and hiring full-time staff to answer the phones. On average, each agency received 11,431 NTD and 219,231 NTD per year for equipment and staff, although agency M absorbed the staff cost itself (Table 1). Since the actual cost of setting up the hotline and hiring staff may be higher than the amount of funding received, and there are other costs associated with operating the hotline, the funding numbers provided here should be seen as a conservative estimate of the program cost. In addition, some of the agencies received a large amount of extra funding for making promotional materials and holding workshops and speeches in an attempt to advertise the program, and those activities are not analyzed here.

The average number of open hours for the 13 hotlines were 65.6 per week, and the median was 45 (Table 2). Agency H and Agency I had the highest open hours, with 168 h per week (i.e., 24 h a day, 7 days a week), while the lowest number of open hours was 9 per week. Further investigation found that agency H was a 24-h mental health counseling hotline that used a preexisting phone number as the CGRPPS hotline. Agency I was a religious organization that utilized both full-time staff and volunteers to answer the calls. The program length varied among the 13 agencies during 2004 from 4 months to 10 months (Table 2).

Because the focus of the study was the hotline service provided by the agencies, the total number of calls received in 2004 was the basic measure of program output. However, many agencies used preexisting phone numbers as the hotline, and not all the incoming calls were for pregnancy consultation. The research team looked through the program files and separated out calls that sought help for pregnancy issues from other kinds of calls (e.g., parent–child relationships, sexual assault, sex-related questions). Table 3 shows that the annual number of pregnancy-related calls...
277 received varied widely among agencies, with an average 77.1 and a median of 27.
278 Agency C had the largest number of calls (n = 442), and four agencies didn’t have
279 any calls at all in 2004. Certain agencies had large numbers of incoming calls, but
280 few of them concerned pregnancy issues. Correlation analysis showed no
281 association between program length, open hours per week and number of
282 pregnancy-related calls.

Table 1 Funding from the Bureau during 2004 (in New Taiwan Dollars)

<table>
<thead>
<tr>
<th>Agency</th>
<th>Setup fee</th>
<th>Personnel expensea</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>150,000</td>
<td>300,000</td>
</tr>
<tr>
<td>B</td>
<td>100,000</td>
<td>300,000</td>
</tr>
<tr>
<td>C</td>
<td>150,000</td>
<td>270,000</td>
</tr>
<tr>
<td>D</td>
<td>150,000</td>
<td>210,000</td>
</tr>
<tr>
<td>E</td>
<td>150,000</td>
<td>270,000</td>
</tr>
<tr>
<td>F</td>
<td>145,000</td>
<td>270,000</td>
</tr>
<tr>
<td>G</td>
<td>100,000</td>
<td>180,000</td>
</tr>
<tr>
<td>H</td>
<td>140,000</td>
<td>180,000</td>
</tr>
<tr>
<td>I</td>
<td>48,000</td>
<td>120,000</td>
</tr>
<tr>
<td>J</td>
<td>130,000</td>
<td>270,000</td>
</tr>
<tr>
<td>K</td>
<td>72,000</td>
<td>180,000</td>
</tr>
<tr>
<td>L</td>
<td>0</td>
<td>300,000</td>
</tr>
<tr>
<td>M</td>
<td>150,000</td>
<td>0</td>
</tr>
</tbody>
</table>

a Personnel expense = 30,000 per month × length of program

Table 2 Work time input for the hotline during 2004

<table>
<thead>
<tr>
<th>Agency</th>
<th>Program length (months)</th>
<th>Weekly open time</th>
<th>Total open hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10</td>
<td>Monday–Friday 09:00–12:30, 13:30–18:00</td>
<td>40.0</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>Monday, Wednesday, Friday 14:00–17:00</td>
<td>9.0</td>
</tr>
<tr>
<td>C</td>
<td>9</td>
<td>Monday–Friday 08:30–18:00</td>
<td>52.5</td>
</tr>
<tr>
<td>D</td>
<td>7</td>
<td>Monday 13:00–21:00, Tuesday–Friday 09:00–17:30</td>
<td>43.0</td>
</tr>
<tr>
<td>E</td>
<td>9</td>
<td>Monday–Friday 09:00–18:00</td>
<td>40.0</td>
</tr>
<tr>
<td>F</td>
<td>9</td>
<td>Monday–Friday 09:00–12:00, 13:30–17:30</td>
<td>35.0</td>
</tr>
<tr>
<td>G</td>
<td>6</td>
<td>Monday–Friday 09:00–18:00</td>
<td>45.0</td>
</tr>
<tr>
<td>H</td>
<td>6</td>
<td>Monday–Sunday 00:00–24:00</td>
<td>168.0</td>
</tr>
<tr>
<td>I</td>
<td>4</td>
<td>Monday–Sunday 00:00–24:00</td>
<td>168.0</td>
</tr>
<tr>
<td>J</td>
<td>9</td>
<td>Monday–Friday 09:00–12:30, 13:30–18:00</td>
<td>40.0</td>
</tr>
<tr>
<td>K</td>
<td>6</td>
<td>Monday–Sunday 10:00–22:00</td>
<td>84.0</td>
</tr>
<tr>
<td>L</td>
<td>10</td>
<td>Monday–Sunday 08:00–12:00, 13:30–22:00</td>
<td>80.5</td>
</tr>
<tr>
<td>M</td>
<td>8</td>
<td>Monday–Friday 08:00–17:30</td>
<td>47.5</td>
</tr>
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</table>
Focus Group and On-Site Visit

Many of the respondent comments obtained from focus groups and on-site visits highlighted the diversity in the overarching goals and specific services among CGRPPS agencies and hoped to have individualized criteria for performance evaluation that took agency heterogeneity into account.

…… is a religious organization, not a social welfare agency. Before taking part in this program, we didn’t have expertise in this field. We just hope that those girls can be accepted when they come in. Besides, the approach of…… emphasizes on caring, which may be in conflict with these evaluation indicators."

“One special feature of … is that we also contract with the local social welfare department to handle child adoption affairs. Therefore, I think it is important for the evaluation to appreciate the diversity in service provision to clients with non-marital pregnancies. I know that some agencies do not deal with adoption issues in non-marital pregnancies, but we do. It is a major part of our service.”

Many agencies also pointed out the wide range of teen pregnancy services and the multiple needs of the clients. In their view, the hotline should be regarded as a starting point of service delivery and the evaluation must examine all the relevant elements. Some agencies also reflected on their own service experiences and noted the importance of a referral system and a resource network.

The phone calls are usually the intake part, which connect to later interview sessions. Or she may move in to our placement site and we provide subsequent services. The hotline alone actually doesn’t go very deep….
I was thinking about what I can provide. During the short period of 3 months, I often asked myself these questions. When I was not able to refer them to subsequent services, I began to be concerned about the follow-ups. With regard to teen pregnancy, role definition is an issue. For the hotline, I regarded it as providing front line welfare consultations and psychological support. But that led to another question. Since long-term intervention may be necessary for pregnant clients, the current approach may become a barrier to doing more depth and continuative work.

I think the difficult part lies in the provision of relevant resources. I feel the hotline consultation is fine since we have been running this service already. But the point is to assess the clients’ needs during the consultation and to connect them with social resources in the service process. In assisting the pregnant clients, we found that it is necessary to connect them to medical resources. Even after the baby is born and the mother decides to give it up to adoption, an immediate adoption is unlikely and we need to connect the pediatric resources and valuate the medical condition of the child. If she doesn’t have money to get a prenatal examination, we will try to find a clinic with no registration fee for seeing the doctor. Because the service covers the whole area, you have to develop resources in different areas to facilitate clients to utilize local resources. I think that is what we consistently put effort into.

Test Calls to Hotline

Research assistants called out to the 13 agencies during October with two scenarios. Analysis of the conversations revealed substantial differences in the professionalism and service quality of the agencies. The positive features that were frequently noted included the warm and caring attitude of the staff, empathy with the caller’s feelings, showing support, providing accurate and comprehensive information, and encouraging the caller to receive subsequent services. On the other hand, common shortcomings included loud background noise, poor phone-line quality, staff that was too directive in the conversation or likely to elicit discomfort in the caller, failing to properly assess the caller’s needs and explore potential options, insufficient professional knowledge and giving out incorrect information, and no one answering the phone.

Trial of a Computerized Management Information System

A computerized management information system was designed and sent to the 13 agencies for a 1-month trial (October 14–November 14). 12 out of 13 datasets were returned for analysis after the trial ended. The test calls were singled out and excluded from the data. During the 1-month trial period, there were a total of 256 incoming calls to the hotlines with an average of 21.3 pre agency. Agency M had the fewest calls (1), and Agency G didn’t send back the data. Hotlines with large numbers of calls included Agency C ($n = 67$), Agency I ($n = 49$), and Agency B ($n = 37$).
Among the 256 calls, 203 (79.3%) were from first-time callers, 50 (19.5%) were from repeat callers, and the other 3 calls were unidentified. Thus, there was a prevalence of first-time—and probably one-time-only—contacts. The average length of a conversation was 20.8 min, and the length ranged from 1 to 95 min. The lengths of 55 calls were not recorded, so they are not included in the data. The afternoon (1 pm-5 pm) had the largest number of calls, followed by the morning (9 am–1 pm). There were very few call-ins after 5 p.m. due to the fact that most of the hotlines were open only during work hours. As a supplemental analysis, the 4 hotlines operating at night were singled out and the number of calls during night time was calculated. There were 16 calls received by the 4 agencies from 6 pm to 11 pm (16.8% of all recorded calls with valid incoming time), which showed the existence of service need during these hours.

One hundred and eighty four calls were from females and 67 were from males, with the gender of three calls unspecified. Among cases with valid data (n = 137), the average age was 26.4 and the youngest was 13 years old. Only 19 callers (7.6%) were under age 17. 136 calls were from unmarried persons, 50 married, 11 divorced, 1 separated, and the other 58 unknown. With regard to the caller’s educational background, senior high/vocational school had the highest number (n = 45), followed by college degree (n = 32), five-year junior college (n = 14), junior high and below (n = 11), with missing data on 154 cases. When the caller’s relationship with the identified client was revealed, the most frequent responses included “himself/herself” (n = 124), “parent” (n = 34), “friend” (n = 32), “governmental/private social welfare agency” (n = 26), and “medical and educational staff” (n = 8 and n = 2, respectively). Low call rates from hospitals and schools suggested that there is still room to enhance the communication and collaboration with these organizations.

The callers’ major concerns included adoption consultation (n = 92), placement for pregnant women (n = 65), relationship problems (n = 54), and sex knowledge (n = 46). At the same time, the services provided by the staff included providing information (n = 169), emotional support (n = 101), referral to other agency (n = 26), initiation of casework (n = 9), and other services (n = 13). Callers knew about the hotline through referral from other agencies (n = 62), the internet (n = 35), and friends (n = 19), which highlighted the significance of agency network development and internet promotion. On the other hand, although many agencies spent a considerable amount of money on printed materials and promotional speeches, very few callers knew about the hotline through those avenues (“agency printed material” = 8, “speech” = 6, “magazine and newspaper” = 3, “TV and radio” = 4). However, since half of the incoming calls did not have data in this respect (n = 116), estimation of the actual influence of promotion efforts based on this data should be undertaken with caution.

Discussion

Teenagers who find themselves pregnant often feel ashamed to seek help, and their parents and teachers lack consultation resources. The government funded private
agencies in Taiwan to set up consultation hotlines and hire fulltime staff to answer incoming calls. It was expected that the hotline could function as a window through which to reach the potential clients and provide needed services. The present study utilized a variety of data sources to evaluate the service quality and output of the 13 agencies islandwide that had received the Bureau’s funding during 2004–2005. The evaluation used the set-up fees and staff salary as a conservative estimate of the equipment and personnel cost of the program (input) and the number of received calls as the basic output. Multiple methods, including documentation review, focus groups, on-site visits, test calls and data from a management information system were employed to better understand the details of the programs.

The results showed that, although every agency hired a full-time hotline staff member under the funding, most of the agencies received relatively few calls. In fact, one agency did not receive any calls concerning premarital pregnancy during the whole study period. The agencies that received larger numbers of calls had been providing related services, such as adoption and placement, long before the initiation of the program. For example, Agency C had primarily engaged in the placement of women in non-marital pregnancy and the adoption of their children before participating in CGRPPS. In fact, many of the agencies used pre-existing phone numbers as the hotline, confounding the accurate estimation of CGRPPS output. The agency’s reputation and experience in the field can be a significant advantage that attracts potential clients to seek help and receive further services. For example, agencies with placement facilities are far more likely to receive calls from pregnant teenagers and their families, who may spontaneously call in for assistance, than are other types of agencies, and the staff can seize the opportunity to deliver other pregnancy-related services. However, this situation also raised concerns about the appropriateness of providing public funds to finance the agency’s routine operation. The grey zone in this circumstance is a significant issue that should be addressed in the current atmosphere of privatization and contracting-out of welfare services.

At the same time, the volume of services is often not the focus in the field of social welfare. Service quality and accessibility may be more important. In order to assess the service quality of the hotlines, scripts with two common teen pregnancy scenarios were written and test calls were made by the research assistants. Large differences in quality were found among the agencies, and the staff professionalism and phone line connection quality of certain agencies needs much improvement. For example, one hotline staff mistook Mifepristone (an abortion drug) for Flunitrazepam (a sedative drug), and another hotline was disconnected for several days. Based on their religious beliefs, some agencies actively tried to discourage callers from choosing an abortion, regardless of the mother’s best interests. As to the open hours of the hotlines, most agencies opened during the work hours on week days and closed during the weekend, while a few hotlines remained open 24 h a day and 7 days a week. One agency opened its hotline only 9 h each week, which raised serious concern about service availability. The accessibility of the hotlines was also questionable since most teenagers were in school when the hotlines were open, and their parents were likely to be at work, which made it inconvenient to call in. The possibility of nighttime and weekend service should be considered to facilitate potential clients’ utilization of the program.
The hotline staff members are expected to have proper training and experience in relevant fields such as social work, counseling, and hotline consultation. They should also have sufficient knowledge in teen pregnancy issues in order to accurately assess the client’s needs and provide adequate assistance. The documents submitted by the agencies showed that most staff members had a degree in social work or social welfare along with some work experience in social service agencies. However, not all of them had received training in adolescent practice and teen pregnancy. Considerable differences in the quality of case reports and other documentation were found during the research team’s visit to the agencies, which highlighted the need for on-the-job training for certain hotline staff. At the same time, many CGRPPS agencies had religious missions, and their dogmas might affect the staff’s intervention approach with pregnant teenagers. There has been a closer partnership between governmental departments and religious organizations in welfare service provision during recent years (Cnaan 1999; Fischer 2004), and the issue of potential value conflicts should be addressed in practice and policy-making.

While the efficiency of performance is increasingly emphasized, it is not enough to focus only on cost and output volume without taking service quality into account. Putting too much weight on lowering costs without also increasing service quantity is not beneficial for the clients. More and more governmental departments have set a lower limit of service volume for the contracted agencies in an attempt to ensure accountability, but such limits should be accompanied by quality control mechanisms to avoid the potential consequence that “bad money drives out good.” In addition, output is not equal to outcome since outcome refers to the change or effect of the program, which is more important but harder to measure.

One limitation of the present study is the lack of outcome and impact data. Therefore, only the efficiency, but not the effectiveness of CGRPPS was quantitatively analyzed. Even the quantitative measurement of service output is often difficult for many welfare agencies, never mind the program effects, so service contracts between the government and private agencies rarely include outcome specifications. Hwang and Hsiao (2006) analyzed 18 copies of local governmental contracts of social service in the middle region of Taiwan and found that only three mentioned outcome or quality issues. Nonetheless, evidence-based, effectiveness-oriented and accountable practice has gradually become the professional standard in the field, and every agency will face the challenge of evaluation sooner or later.

Implications for Policy and Practice

Two essential purposes of program evaluation are to ensure the proper use of resources and to enhance the quality, efficiency and effectiveness of services. As a result of the public concern on the issue of teen pregnancy, the Children’s Bureau spent over 60,000 USD funding the CGRPPS agencies in 2004, which highlighted the need for performance evaluation and improvement. From our data analysis and results, a number of specific suggestions can be made for the program and relevant policies.

The establishment of a consultation hotline is a major component of CGRPPS, and most agencies received governmental funding on set-up fees and staff salaries,
which constituted a large part of the total budget of CGRPPS. However, each of the 483 agencies had its own phone number, and some of them used their preexisting phone 484 numbers as the hotlines, which reduced the visibility of the program and left a weak 485 impression on the audience. Different hotline numbers also created difficulty for 486 potential clients in memorizing and dialing the phone numbers correctly. Moreover, 487 most agencies had few incoming calls and the service quality varied significantly. As 488 a result, the current policy of opening multiple local hotlines and financing full-time 489 staff for each agency risks the problem of resource misallocation. On the other hand, 490 some agencies perform quite well and are capable of providing quality services. It is 491 therefore suggested that the island be divided into four districts and that one 492 regional center be set up for processing hotline calls in each district. The hotline 493 centers can be contracted out to high-performing agencies for taking incoming calls 494 and referring the clients to nearby resources for further assistance. One islandwide 495 free hotline number can also be set up and promoted (like the 113 hotline for family 496 violence in Taiwan), instead of multiple phone numbers.

The performances of certain agencies were less than satisfactory, and consid- 497 erable discrepancies existed between expected and actual output. There is a lack of 498 regular communication between the Bureau and the contracted agencies, which 499 made it difficult for the department to identify problem situations and respond 500 promptly. As a result, problems are often undetected until the end of the funding 501 year or until the occasion of an unscheduled on-site visit by which time it is too late 502 to make corrections before the resources are wasted. In fact, the Bureau did demand 503 monthly reports for the hotlines from the beginning of the program, but no 504 minimum output requirement or concrete sanctions were established. Most agencies 505 did not have specific criteria by which to evaluate their performance and make 506 service adjustments. We suggest that core criteria for service volume and quality be 507 developed and that specific records and forms be created to accurately monitor the 508 performance of individual agencies.

Under the current trend of service contracting social services out to private 511 agencies, it is crucial for agency staff to have a clear understanding of policy 512 objectives and program purposes. However, during the on site visits and focus 513 groups, the research team found that frequent personnel turnover was common for 514 many agencies and new employees did not have sufficient understanding of the 515 program objectives and the history of services. In order to enhance the competence 516 of staff and the quality of services, it is suggested that all the hotline staff be invited 517 to attend training seminars where officials from the Bureau could explain the 518 purposes and expectations of CGRPPS programs. Senior staff from agencies with 519 outstanding quality and efficiency performances could also be invited as speakers to 520 share their methods and experiences in order to help other workers develop better 521 capabilities in program planning and evaluation.

The Children's Bureau has the significance of performance evaluation of contracted- 523 out programs and began to regularly funded researchers to conduct evaluation studies in 524 an attempt to monitor the services provided. However, some agencies did not have an 525 internal mechanism for supervision, which made it difficult for them to improve based on 526 recommendations from evaluations. The Bureau may consider using withholding of 527 future funding as a sanction to ensure agency performance. It also should establish

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consulting and advising mechanisms to ensure the service quality and quantity of private agencies and transform them into reliable partners in the provision of social welfare services. Many CGRPPS agencies acknowledged a number of barriers they have encountered in providing services, including the lack of adequate professional resources and support from the Bureau. They suggested that the Bureau should not only facilitate evaluations but also provide necessary support, such as expert consultants or external supervisors for the agencies. This kind of effort is especially important for those organizations with poor performance.

One measure of the program’s unsatisfactory output in 2004 was its low utilization rate by pregnant teenagers. Generally speaking, teen pregnancy is a highly stigmatized issue, and potential clients often try to manage it privately, rather than letting other people know about it; seeking help from social welfare agencies is likely to be a last resort. At the same time, since there were multiple hotline numbers in different areas, the agency staff had to spend considerable time in promoting and advertising the hotline, but their efforts were not always effective. As a result, many teenagers in need may not know about CGRPPS or what the program can do for them. After reviewing the promotional materials and propaganda from individual agencies, we recommend that the Bureau undertake production of uniform materials and distribute them to schools, churches, pharmacies and hospitals islandwide. Agency representatives also suggested that the local CGRPPS agencies develop a collaborative network with other departments in law enforcement, health care, education, and social welfare in order to identify and refer clients.

The low usage rate of the CGRPPS hotlines suggests that innovation of creative teen pregnancy services from a user-friendly perspective is essential. Possible strategies include collecting information on advancements in the field internationally, seeking advice from researchers and practitioners, examining the service experiences of youth agencies, and conducting surveys for the target population to understand their opinion on current programs and their suggestions for future service design. Existing services are not necessarily the best practice but, once created, they tend to remain. Based on the findings of this evaluation, CGRPPS has recently undergone major changes including the establishment of one islandwide hotline number operated by a qualified agency with open hours from 9 am to 9 pm everyday (except Sunday). Good intentions do not guarantee positive results. The present study shows that, when it comes to delivery of services to youth, the government needs to do more than funding provision. Quality control, client satisfaction, efficiency and program effectiveness are all crucial issues to address in order to truly respond to youth’s needs and to enhance the wellbeing of adolescents in Taiwan.

References


