

PUBLIC LIBRARY SERVICES FOR WHEELCHAIR-BOUND YOUNG PEOPLE IN SINGAPORE

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ABSTRACT

This is an exploratory study of public library services in Singapore for young people (defined as those people between thirteen to nineteen years of age) who are wheelchair bound. Three main research questions are explored:

- What are the information needs of wheelchair-bound young people?
- What are their perceptions of libraries and library services?
- What are the problems they face in using library facilities and services?

The study involves eleven wheelchair-bound people between the ages of twelve and twenty who were selected by means of a purposive sample.

Findings indicate that most participants enjoyed reading books but did not read newspapers. The computer was used primarily as a recreational tool, and the convenience of the Internet appealed to them. There were, however, problems in using computer equipment in the libraries. School libraries were generally inaccessible, and there were also problems in using public library services and facilities as well as being in public places. Their use of public libraries was infrequent. They were unaware of the full range of library facilities and services.

The study concluded that there was a need and demand for library services by wheelchair-bound young people. Their information needs and reading habits were no different from those of any young person. Current library promotions were inadequate in stimulating or sustaining their awareness and interest. Transportation was the main obstacle in getting to libraries. The problems faced in using libraries were mainly related to architectural and physical access to library facilities and services.

INTRODUCTION

In the past, libraries have been oriented largely toward serving non-disabled users (Dequin, 1983). Primary services to able-bodied persons have been reflected in the types of materials and the programmes of service that librarians have provided. As more of the disabled are brought into the mainstream of education and of general society, there will be an increased need for all types of libraries to provide services and materials to this group.

Research in the area of libraries and the disabled is lacking in Singapore. Few public library staff in Singapore, if any, are specifically trained in facilitating the access of wheelchair-bound users to the National Library's collections and services.

One of the many client groups of public libraries in Singapore is comprised of teenagers. Within this group there are many who are wheelchair bound. Although much has been done to improve public library services over the last few years, the disabled population remains largely under-served.

REVIEW OF RELATED LITERATURE

While library literature on the disabled does exist, the literature on wheelchair users in libraries remains scarce. Scarcer still is library literature related to young people who are wheelchair bound. In the research that does deal with wheelchair-users, the focus is mainly on physical access issues.

Library services for the disabled in Singapore—past and present

Since the 1950s, the National Library has been providing some services to the disabled population. The literature reviewed indicates, however, that subsequent initiatives to provide services to the disabled have been sporadic (Ng, 1997; Seet, 1983; Sinnatamby, 1983).

In 1991, the National Library conducted a survey to determine if organisations for the homebound, the visually handicapped, and senior citizens had a collection of Singapore stories on tape. The project was shelved due to "budgetary and other considerations."

In 1992, the National Library and the National Book Development Council organised the Seminar on the Learning and Reading Disabilities of Disabled Children. Also, in that same year, the National Library formed the Library Services for Special Groups (LSSG), comprised of library staff and representatives from special schools, associations serving children with various forms of disabilities, and various government ministries and departments. The aim of LSSG was to look into how the National Library could play a more effective role in assisting young readers with disabilities. In 1995, however, when the National Library Board was formed, the group dissolved.

Data on wheelchair-bound young people in Singapore

The total number of wheelchair-bound young people in Singapore is not known. In fact, statistical data on disabled people in Singapore is difficult to obtain. This problem is not confined just to Singapore. The collection of comprehensive statistical data on the disabled has been acknowledged as a world-wide problem (Advisory Council on the Disabled, 1988; Committee on Education of Handicapped Children, 1972; Krishnan, 1996; Marshall, 1991; Schauder, 1980; Wright, 1983).

It has been estimated that three to ten percent of the population has some form of disability (Advisory Council on the Disabled, 1988). It has also been reported that there are 5,300 registered wheelchair users (Mathi, 1998). That figure does not, however, indicate the proportion by age group. Moreover, the actual figures for wheelchair users could be much higher as there may be wheelchair users who have not registered.

Another reason for the lack of accurate data on wheelchair-bound people is that some of them may not be permanently wheelchair bound. For example, some young children with cerebral palsy who have not yet developed sufficient muscle strength and balance may require a wheelchair in their early years. On the other hand, a person with muscular dystrophy may require a wheelchair only later in life as the muscles deteriorate (R. Joseph, personal communication, July 19, 1999).

As Krishnan (1996) suggests, the lack of comprehensive data on the disabled should not serve as an excuse for not providing services to them. While it is important to note that data collection and research on the situation of disabled persons are both desirable and necessary, appropriate action can often be taken even if exact data on the numbers of disabled people is unavailable.

Young people and libraries

The literature reviewed supports the notion that libraries play an important role in the education of children and young people (Denham, 1996; Dequin, 1983; Fasick, 1991; Mohsen, 1997; Richards, 1984; Spiers, 1998).

A National Readership Survey commissioned by the National Library Board has provided some information on the reading habits of Singaporeans (National Library Board, 1998). The survey discusses newspaper reading, the reading of magazines and books, the use of electronic media, visits to libraries, and the role of parents in influencing the reading habits of their children.

The survey found that magazines were read more than books, with teenagers reading the most (mean of 4.37 books a week). The top three sources of books were (1) bought by the readers themselves, (2) borrowed from the public library, and (3) borrowed from someone else. The chance that books would be from a borrowed source, either from the public or school library, was highest for thirteen to nineteen year-olds. In terms of categories of materials, entertainment was very popular among the thirteen to nineteen year-olds and declined as the age groups progressed. Categories such as current affairs showed an upward trend in terms of their popularity in relation to the increased age of respondents. The three main reasons why Singaporeans read books or magazines were they wanted to increase their general knowledge, they liked to read, and they

wanted to keep in touch with the latest developments. The survey indicates that such reasons as their liking information or their need of information in order to work on their school projects were associated with why the thirteen to nineteen year-olds read.

The Project Bookworm report (National Library, 1993) found that non-users' perceptions of the library were based on memories dating back a few years or on very brief, isolated visits in more recent years. Such perceptions were mostly negative. Users had a more positive and current impression of libraries. It was also found that young people perceived their school libraries as being limited in range and services. They viewed public libraries as a place to borrow books for their reading pleasure as well as a place that housed books for their school projects. They were likely to visit the libraries in pairs or groups. Teenagers were quite open to trying new things. The fourteen to fifteen year-olds' reading preferences were mainly fiction, especially such genres as horror, romance, and ghost stories. Non-fiction was for school work and projects.

The disabled young person's information needs

There are several recurrent themes in the literature reviewed concerning the issue of information needs (Association of Specialized and Cooperative Library Agencies, 1979; Committee on Education of Handicapped Children, 1972; Denham, 1996; Dequin, 1983; Krishnan, 1996; Lucas & Karrenbrock, 1983; Spiers, 1998). It is generally agreed that those who are disabled should not be isolated. They need access to information just as do able-bodied persons. Also, their information needs do not differ greatly although the means by which they receive and transmit information may. In most cases, their intellectual abilities, needs, and interests are likely to be the same as those of their able-bodied peers.

The disabled young person is, first, a young person, with the same needs as his peers. A secondary consideration is that the young person requires special treatment and facilities to enable him to reach his full potential. Mental capacities are not necessarily lessened by physical disabilities. Spiers (1998) suggests that the range of intelligent quotients for children with physical disabilities is no different from that of able-bodied children nor is the range of material used. Dequin (1983), however, cautions that while the age, needs, and interests of disabled young people may be similar to those of able-bodied peers, there may be more important differences in physical characteristics caused by the disability. Disabilities cannot be ignored because doing so may have negative implications for children's use of materials. A disability may automatically impose limitations that affect their selection of the material. Denham (1996) suggests that the majority of those with physical disabilities are able to use print. For those who are unable to use print, it is important to provide a more accessible method of reading.

JUSTIFICATION FOR STUDY

In order for public libraries to provide relevant and meaningful services and facilities to wheelchair-bound young users, there must be an understanding of their needs, their perceptions of public libraries, and the problems they encounter in using library services and facilities.

METHODOLOGY

The focus group interview technique was used as a research tool. In this case, an interview-style data collection method was more appropriate than administering a questionnaire as the participants might be unable to verbalise their thoughts, feelings, and experiences fully. Also, because of their disabilities, they might have problems writing their responses on paper.

A total of eleven people between twelve and twenty years of age who are wheelchair bound were selected to participate in the study. The participants are all permanently wheelchair-bound although their specific disabilities differ. Some have spina bifida while others have muscular dystrophy or cerebral palsy, which means that their ability to control their hands and other bodily functions differs from individual to individual. Seven of them were enrolled in a mainstream school while the other four had not attended school for the last five to ten years. Most of them had visited a public library at some time, some more recently than others.

The interviews were held in two separate sessions, with the first group comprised of three girls and four boys and the second group comprised of four boys. All the participants in the first group were studying in mainstream schools. Participants in the second group were not enrolled in any school as they had been forced to drop out because of their disabilities.

FINDINGS AND DISCUSSION

The thematic approach (also known as the topical approach) was used to analyse the findings. The discussion of the findings is organised around focal points with observed relationships, events, and conversations fitted into the pattern. In this case, the focal points are the research questions. Analysing the findings was a challenge because of the enormous amount of information collected. Data analysis was non-linear and involved a re-iterative process of returning to the data to search and reorganise themes and patterns.

Information needs of wheelchair-bound young people

The findings show many consistencies with the 1998 Reading Habits Survey and the Project Bookworm report in regard to the participants' profiles, interests, hobbies, and reading habits. There were, however, some important differences due to these subjects' confinement to a wheelchair. Their information needs were largely dependent on such factors as gender, personal interests, age, and whether they were attending school. Being disabled did not appear to be a major determinant in their information needs although it was a crucial factor in how they went about obtaining information.

Participants' profile

The participants' hobbies and interests were similar to those of a typical teenager. Being confined to wheelchairs did not diminish their enjoyment in watching soccer on TV or stop them from being soccer fans. There was no apparent difference in the interests and hobbies of those who were attending schools and those who were not. As suggested by Denham, young people were easy to distinguish by age but were not a homogeneous group. Each of the participants in this study had his/her individual interests and abilities.

None of the participants in this study mentioned any involvement in physical activities. In contrast, the young people of the Project Bookworm report were engaged in sports, shopping, music, and going with friends to the movies. The report noted that reading was not mentioned spontaneously as a hobby. In contrast, the participants in this study were inclined towards activities that were less physical. Four of them specifically mentioned reading as their hobby. This suggests that reading could be a significant way in which they learn and experience the world around them. Information in the form of printed and non-print materials would, therefore, be more crucial for wheelchair-bound young people than for those who are able-bodied.

Their use of electronic media (Internet, CD-ROM, and online/wire services) was also consistent with the findings in the 1998 Reading Habits Survey, which found that electronic media were used mostly for recreational purposes, followed by the need for knowledge and then for project work. In this study, the playing of computer games was mentioned most often, followed closely by reading.

Reading habits

The 1998 survey found that magazines were read more than books and that entertainment was a very popular category among the thirteen to nineteen year-olds. Our study did show that the participants preferred entertainment magazines rather than other sorts of magazine. It is, however, not conclusive as to whether they prefer books to magazines.

Newspaper reading was not popular among the wheelchair-bound participants. Those who did read newspaper articles were influenced by the demands of their teachers. In the case of participants who were not attending school, reading newspapers was just a way of passing time. This age group's lack of interest in newspapers could indicate their attitude toward current affairs. Again, this was consistent with the 1998 survey that found that entertainment was more popular with the thirteen to nineteen year-olds as opposed to such categories as current affairs, which were

more popular among older readers.

Another finding consistent with the 1998 survey was that the participants read mostly fiction. The categories most frequently mentioned were mystery, romance, horror, and ghost stories.

The 1998 survey reported that teenagers read an average of 4.37 books a week. It is not clear how many books the wheelchair-bound participants read on average, but the figure is likely to be lower than that found in the 1998 survey. Four participants said they had read at least one book in the past six months, whereas the others had not. The low number of books read, however, does not necessarily mean that they do not like to read. It could be due to the lack of reading materials. For example, one participant indicated that he used to be a prolific reader but had stopped because there was nothing else to read.

In the 1998 survey, thirteen to nineteen year-olds were more likely to obtain books from the public or school library than to buy or borrow them. This was also found to be true in our study, where most participants obtained books borrowed on their behalf from libraries. Those who visited used-book stores chose to rent rather than buy the books.

Information needs

As with the 1998 survey, the participants read because of their interest in reading and their need for information to work on their projects. Those participants in mainstream schools were specifically required to do school projects.

The participants who were asked if they wanted to find out more about their disabilities gave mixed answers. Not all of them expressed an interest in finding out more. This suggests that one cannot assume that a wheelchair-bound young person automatically wants more information on disabilities or wants to get the information from public libraries.

Since their reading habits and profiles were the same as those of any other able-bodied teenager, the current library collection should be able to meet their reading needs. Whether the library should build up a collection on disabilities warrants further study, but the findings suggest that there is no urgency in doing so. If such a collection were to be developed, it might turn out to be more useful for able-bodied teenagers who wish to know more about the disabled than for the wheelchair-bound young people themselves.

Knowledge and perceptions of libraries and library services

As stated earlier, the 1993 Project Bookworm report stated that non-users' perceptions of the library were based on memories dating back a few years or on brief, isolated visits in recent years. Their perceptions were also mostly negative. Those who used libraries had a more positive and current impression.

In our study of wheelchair-bound users, none of the participants was aware of the full range of library services and facilities. Non-users knew the least, and users who had recent experience of public libraries demonstrated a better awareness. The most common perception of what could be found in libraries was books and computers. They perceived library programmes and events to be uninteresting.

Lack of interest

The perceptions of participants who used libraries were positive, and non-users did not say anything negative. Participants felt that libraries were useful to people who liked to read as libraries provided them a wide variety of reading materials without their having to buy any. Another felt that information was "organised" in the library.

The participants who said they did not wish to visit libraries appeared to feel that way out of lack of interest rather than from any negative perceptions. Coincidentally, those who did not use libraries did not mention reading as a hobby. Thus, they were not motivated to use libraries because they

were already not keen on reading, and they perceived libraries simply as repositories of books. Once the full range of library services and facilities were described to them, however, their interest seemed to increase. This can be seen in the reaction of one participant, who initially said he was not interested in libraries. He became visibly more attentive when he was shown the brochures on current library services and facilities, and later said he would want to visit a public library. His reaction is not surprising. More than half the young people interviewed in Mohsen's (1997) study did not use the public library regularly mainly due to the lack of time and motivation. Their lack of motivation was due to their lack of awareness.

That books and computers (possibly meaning the online catalogues as well) were mentioned is not surprising as those are commonly seen in the public libraries in Singapore. Lack of interest in library programmes should be further investigated to see if the problem is in the programme content or something else. For example, lack of interest may be due to difficulties in making the trip to attend the programme in the library.

One participant perceived that there was not much to be found in libraries. Libraries were used only as a last resort because such use was "difficult." By that she could have meant difficulty in physically accessing the information and/or difficulty in understanding how things were organised in the library. It is suggested that improving physical access would address the first issue and effective user education would address the second.

Marketing and promotion

The current means of library promotions are ineffective in attracting the wheelchair-bound young person. Publicity in the press (about library events, programmes, new services, and facilities) have limited effect since most of the participants do not read the newspapers. Brochures and posters are available only in the library so only people who visit libraries get them.

Current library promotions are aimed at people who already go to libraries rather than those who cannot or do not. It may be more effective to include wheelchair-bound young people in the library mailing list. This would allow them to be updated on current library events. For those who have Internet access at home, the library should do more to promote the library web site where the events and programmes are listed.

Since current library services can be utilised by wheelchair-bound young people, the services offered should not be regarded as a separate segment of library operations. The issue is not the lack of library services but the lack of promotions to increase potential users' awareness. For example, some participants indicated that the book delivery service would be useful, and some expressed very keen interest in Internet services. This indicates that the need and the demand are present. Because the wheelchair-bound young person is unaware or has an inaccurate perception of public libraries, he therefore has no interest and does not make the effort to find out more about resources, services, and programmes.

Library promotions should also target parents and guardians as they are the ones on whom wheelchair-bound young persons rely to travel out of their homes. The message to be conveyed to this particular group can perhaps emphasise the relevance and importance of the library to their charges. Publicity efforts should also address the accessibility issue in libraries.

It must be noted that, although library promotions have been effective in raising participants' interest in and knowledge of library services, such gains may be difficult to sustain. For example, only one participant who attended a library talk could remember most of the services introduced during the talk. The others said they either forgot or did not read the publicity materials provided. The implication is that library services have to be experienced, not simply gleaned from written documents. It may also mean that the participants had been given too much information to absorb.

Increasing wheelchair-bound young persons' interest in and awareness of library services is important if we want to encourage them to use the public library. Promotions cannot, however, be

effective without making libraries more accessible. Attracting wheelchair-bound young persons to libraries would be a futile exercise if they still encountered difficulties in getting into or navigating within the library.

Problems faced in using library facilities and services

The main problem faced by the participants seems to be the issue of transportation. Some of the respondents did not find it difficult to navigate once in the library; the problem was in getting into the library.

In relation to library premises, the problems that were most frequently mentioned were those involving the building, furniture, computer equipment, and other physical obstructions. The researcher observed that a subtler problem, which the participants did not explicitly acknowledge but implied, had to do with the public's reactions toward them.

Transportation

The availability of transportation to get to and from places is a major issue. Those who are willing to make the effort to visit libraries face problems in using public transport. Some taxis refuse to take them because it is troublesome to get the wheelchair in and out of the vehicle.

In getting the participants to attend the focus group sessions, arranging for transport was a difficult task when it involved a group of wheelchair users. The resource teachers arranged for the centre's van to pick up the participants from their homes. The van was specially fitted with a lift to move the person who was strapped in the wheelchair in and out of the van. Even then, there was only one van equipped with this lift, and it was shared with another centre.

Some of the participants had to be carried down the stairs to the carpark. The driver could not accomplish this alone so the resource teacher had to accompany him during the entire trip. The participants lived in locations scattered over the island so the most efficient route was to pick up all the participants before arriving at the centre for the session. This meant that the trip had to start as early as three hours before the session began, and the first passenger had to travel in the vehicle for the duration. The whole process had to be repeated in sending the participants home after the focus group session.

The proximity of the library to one's home was a factor in deciding if he/she wanted to visit the library. Although this may be applicable to any library user, it is more critical for a person who is wheelchair bound. Able-bodied persons can travel long distances using public transport. All that is required of them is the time and money for transport expenses. For the wheelchair-bound young person, however, he/she may have difficulties travelling independently. Hiring taxis may not be a viable option for some as taxi fares may be expensive.

Unless the problem of transportation is resolved, efforts in making library premises accessible will be met with limited success. The ultimate goal should not be just making libraries accessible but also enabling the wheelchair-bound young person to leave his/her home, get into the library, and return home again conveniently, independently, and inexpensively.

Computer equipment

The participants' ability to use computer equipment without requiring special devices or modifications depends on the severity of his or her disabilities. Most of them could manage on their own once their arms were placed on the table or on the keyboard. The non-conventional equipment some mentioned were the touch-pad mouse, wireless keyboards, and keyboards with a built-in mouse.

The technology to overcome difficulties in using conventional equipment exists in various forms and levels of complexity. Examples include electrophysiological and photoelectric devices that can sense and track the movements of the user. Eye-typers have been developed for people with

severe motor impairments (Preece, 1994). Such devices benefit users whose hands are disabled or otherwise occupied. With computers becoming commonplace in libraries, libraries should research installing such devices. The usefulness of such devices would not be limited just to the wheelchair bound. For example, the elderly afflicted with arthritis would find a touch-pad mouse easier to use than the conventional mouse, which requires a certain amount of agility in the function of the finger joints.

Since, however, assistive equipment has to be tailored to individual needs, it may be more practical for the wheelchair-bound young person to own the customised equipment at home. Libraries could ensure that electronic resources are available for home access. Issues such as the affordability of the equipment, licensing issues with regards to access of electronic resources, and the range and depth of the resources available must be addressed. It must be remembered, however, that libraries may not find much success in getting the wheelchair bound to use the libraries if librarians concentrate solely on the provision of services without resolving the issue of physical barriers.

Library premises

Problems frequently mentioned were those concerning the physical aspects of library buildings. Redesigning and modifying existing facilities would be costly. There were also implications for the compatibility of the retrofitting in relation to the overall design of a library's interior. Furniture designed to accommodate the wheelchair bound also has to be usable for the able-bodied since space is at a premium in most libraries.

Interestingly, when explicitly asked for suggestions on how to improve library services, the participants mentioned only the physical aspects of the library. They focused on architectural aspects rather than on the overall service. This suggests that in terms of priority, physical accessibility is placed higher than service.

Accessibility features

Although accessibility features may be present in libraries, they can usually be improved. One participant, who visited one particular library quite often, did not seem to know there was a lift for wheelchair users in that library. The lift was actually located in the staff room, but there were no prominent signs to users that the lift was available. One had to go through the staff entrances to reach the lift, but there were signs saying that the entrance was for staff access only.

Another participant thought there were no ramps or a lift at a library she wanted to visit. A ramp was, in fact, located at the back entrance but was not visible from the front. Unfortunately, there were no signs posted at the front entrance to point out the ramp's location.

There was also a lift in the library, and it had several disabled-friendly features such as additional buttons positioned for someone in a wheelchair to reach easily and a recorded voice announcing levels and whether the doors were opening or closing. Since it was situated behind glass-paneled doors, however, its location was not obvious, especially if one entered through the library's front entrance. The glass doors were tinted and were heavy as well. An able-bodied adult would have to use some effort to open the doors, let alone a wheelchair-bound person. The doors were also not equipped with a push-plate. Using a wheelchair to push against the door was not feasible because it was too heavy, and the lack of the push plate would cause the door to be damaged.

Thus, even though accessibility features existed, the overall usability of the library was not ideal. Improving access does not mean just having accessibility features per se. There must also be a total evaluation of all possible environmental barriers, and appropriate steps need to be taken to address all of them.

Standards

Cantor (1996) stressed that there are many ways to accommodate people with disabilities, most of which do not involve high technology. He proposes the ADAPTABLE approach in planning accessible libraries. The AD-A-P-T-A-B-L-E acronym represents eight workplace accommodation

strategies, namely,

- Assistive Devices
- Alternative formats
- Personal support
- Transportation services
- Adapted furniture
- Building modifications
- Low-tech devices
- Environmental adaptations.

Browell (1998) suggests a "model of best practice" such as not making assumptions about designs, talking to the disabled person for confirmation, and focusing on abilities rather than disabilities. The Association of Research Libraries has published a Spec Kit that includes documents on policy and procedure statements, personnel and staffing, facilities and services planning, building access, descriptions of services, and publicity or user guides (Bishop 1995).

Facing the public

The issue of how the public reacted to the participants was a sensitive one. One participant emotionally described how people did not give way to her wheelchair. Another participant was equally quick to respond that people did not seem to care. The attitudes of the public affect not just the wheelchair-bound young persons but the persons accompanying them as well. For example, one participant said his mother did not like other people to talk about his disability. This suggests that being disabled is still viewed as a social stigma.

The wheelchair-bound young person also wants independence. There is, perhaps, a stigma attached to being overly reliant on others. When asked why they did not request help in getting around, the participants replied they did not wish to impose on others.

Lacking experience in dealing with the public is also likely to be a problem, especially for those not attending school. The participants in the second group said they spent their free time watching television, using the Internet, reading, and making phone calls. Their only regular activity outside home was their twice-weekly session at the therapy centre. Their social interaction was limited as their activities tended to be confined to places with which they were familiar. The implication was that visits to public libraries could be traumatic. It was not realistic for them to venture into libraries on their own even if all physical barriers were removed.

Lucas and Karrenbrock (1983) have suggested that it is important to consider the attitudes disabled children have towards themselves. Some may choose to avoid contact with other disabled people because they do not wish to be viewed as one of "them." Inversely, others may seek only the company of the disabled in order to avoid the "risk-taking aspects of living among nondisabled persons."

It can be said that libraries have a social responsibility to remove this stigma, thus allowing the wheelchair-bound young person to lead an independent life. Working with organisations that serve the disabled, libraries could hold public education forums. In addition, if more wheelchair-bound people were encouraged and enabled to come to libraries, the public would gradually get used to them and thus stare less. This, in turn, might encourage more wheelchair-bound young people to venture to public places.

Implications for service provision

There is a risk that well-intentioned behaviour by library staff could achieve just the opposite effect. Cahill and Eggleston (1995) found that wheelchair users tended to receive uncommon assistance from others when in public places. The authors noted that service providers did not know what was expected of them. The service received "was unquestionably courteous" but also made the disabled the centre of embarrassing attention.

Most participants were shy and reserved during the focus group session, probably because the researcher was a stranger to them. This might help explain their hesitancy in approaching library staff for help, and library staff need to be made aware that wheelchair-bound young persons may wish to avoid being approached by strangers.

Staff providing services to the wheelchair-bound young person ought to be aware of the emotional sensitivities involved. This implies a need for library staff to be trained in how to act towards them. For example, one participant had a problem articulating certain words clearly. A library staff person attending him would need to be patient yet not condescending. In the case of a wheelchair-bound young person who has not been in school for some time, his ability to verbalise and articulate his thoughts and feelings may be less developed than that of his peers who are still in school. For example, one participant in the second group, having been out of school the longest, could not express himself as well as his peers of the same age. Library staff, however, should never assume that such an individual is intellectually less capable. Although the participants did not think that terms such as "special services," "disabled people," and "handicapped" were derogatory, it would be dangerous to assume that such terms are accepted by all wheelchair-bound young people or their parents.

According to Marshall (1991), library education has focused mainly on the "philosophies, organisation and routines of the profession and with people who use libraries as they are." As a result, there is inadequate knowledge of the needs of those who do not or cannot use libraries. Awareness of all the issues mentioned should be incorporated in the library studies curriculum in Singapore. As Dequin (1983) suggests, librarians need not have extensive medical knowledge but should be familiar with the basic characteristics of the primary handicapping conditions. Understanding how a particular disability may affect a patron's use of library materials and services may help a staff member respond appropriately.

Financial barriers

In addition to the three kinds of problems or barriers mentioned in the literature review, the findings from this study suggest a fourth—that imposed by the financial limitations of the families supporting them. For example, one participant repeatedly commented that the two dollar-per-hour-charge for using the multimedia PCs was expensive. Not many of the participants owned computers or could afford to hire London Cabs when they wanted to travel. As libraries move towards the cost-recovery concept, it will be important to ensure that the wheelchair-bound young person is not further ostracised because of his inability to pay for services. Such an individual already faces myriad difficulties in trying to go to the library and certainly does not need new ones.

School libraries

An unexpected finding of the study was that most school libraries were located on the second or third floors, making it difficult for the wheelchair-bound student to access the library. One participant revealed that in all his four years in school, he had never been to his school library, and he had no interest in finding out more about what his school library offered. None of the five who were in secondary schools used his/her school libraries to get information for projects. On a positive note, the Ministry of Education (MOE) announced that it would spend \$7.8 million to build ramps and lifts in schools and provide special and mainstream schools with learning aids for students with special needs (Mathi, 1999). As schools are made more accessible, expectations for more public places to be made accessible will also increase.

The Internet and information literacy

There appears to be an urgent need for the wheelchair-bound young person to be information literate. The younger participants regarded the computer mainly as a toy for playing computer games and did not yet see its full potential as a tool. The participants perceived the Internet as the main tool for information yet did not demonstrate a clear understanding of searching or evaluating the information obtained. Convenience was the main reason respondents chose the Internet over print sources. Information could be readily obtained from the Internet compared to having to

retrieve a physical copy of printed materials. The Internet was seen as a way of overcoming architectural barriers.

For those in school, being in mainstream education exposed them to the experience of having to look up information in their school libraries. Those out of school, however, are more disadvantaged as the opportunities for exposure to information materials are limited. Libraries have the potential to become a continuing education centre for them. Also, it is crucial that they be aware that learning does not stop when they leave school and that libraries have the potential to support continuous learning.

LIMITATIONS OF THE STUDY

Even though the intention was to select a purposive sample, the actual participants chosen might not be truly representative of all young people who are wheelchair-bound in Singapore. The difficulty in selecting a representative sample was compounded by the lack of accurate and comprehensive data on wheelchair-bound young people.

A better understanding of wheelchair-bound users' needs would allow more relevant and effective public library services and facilities to be designed for them. They would then be able to achieve a greater degree of independence in using those services and facilities. Libraries would also fulfil their statutory obligations to the entire community by reducing the gaps between services for disabled and non-disabled users. Knowing how this particular user group perceives libraries would allow for better promotional efforts.

CONCLUSION

The information needs and reading habits of wheelchair-bound young people seemed no different from those of any young person. Gender, age, interests, involvement in school projects (or lack of) are factors that determine the kind of information they require. Being wheelchair-bound is not a major determinant of their information needs but is a crucial factor in how they go about obtaining information.

The main problem in using libraries is getting to the library in the first place. Within the library premises, there are problems relating to stairs, curbs, furniture, computer equipment, and other physical obstructions.

The findings of this study suggest that the wheelchair-bound young person wants to make use of public libraries. At present, however, the need for better means of transportation takes precedence over the demand for any other services.

Since its formation in September 1995, the National Library Board has prototyped and introduced new and improved services to make libraries more convenient and accessible. One might venture to say, however, that most of the public library facilities have not been designed with the disabled in mind. Implicit in the implementation of the services has been the assumption that the users are able-bodied. There have been no significant initiatives for the disabled after the formation of the National Library Board in 1995. As priorities have shifted towards fulfilling the goals outlined in the Library 2000 report, it would seem that the needs of the disabled population have been neglected. Compared to developed countries, Singapore lags behind in the provision of public library services to the disabled.

Montgomery (1990) wrote that society and its institutions will be judged by their success in preparing the majority of young people to make an effective and valued contribution to the community as a whole. Thus, enhancing opportunities for this contribution rests on the ability of the National Library Board to enable both able-bodied and disabled persons to make full use of their public libraries.

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**APPENDIX -
Focus group session interview questions**

Research Question #1: What are the information needs of the wheelchair-bound young person?

- Are you enrolled in a school at present?
- What are your hobbies and interests?
- For those who have school projects, how do you go about getting information?
- How do you go about getting information on your topics of interest?
- Are you interested in information about your disabilities?

Research Question #2: What are their perceptions of libraries and library services?

- Have you visited a public library? Community Children's Library?
- Why do you go to the library? Why do you not go?
- What do you think can be found in a public library today? (Ask about specific services to get their opinions and to find out their awareness regarding the service).
- Do you participate in any programmes organised by the library?
- What do you like/ dislike about the library?

Research Question #3: What are the problems faced in using library facilities and services?

- How often do you go to a library?
- What are the problems you face (if any) in going to the library? (Leaving your home, transportation, etc).
- What are the problems you face in using the library & facilities?
- What are the improvements you would like to see in the library?

Note: Given the dynamic nature of a focus group interview, the exact manner in which the questions were asked differed during the actual sessions.