The Role of Nursing in the Influenza Epidemic of 1918-1919

by Karen R. Robinson, RN, MS

Just as the horrors of World War I were winding down, millions of people were stricken by an influenza epidemic that displaced war as the tragic focus of everyday life. The disease was known as the Spanish influenza and was pandemic in scope. Since the epidemic defied the capabilities of prevailing medicine, good nursing care was the best predictor of outcome. Nurses came to the rescue by working long, hard and tirelessly. One important outcome of the epidemic was a general recognition of the visiting nurse service and all nursing as a valuable and essential community service.

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Imagine yourself as a public health nurse in Chicago. One day you perform your responsibilities in your normal manner. Then almost overnight you are getting calls where entire families are ill. Your area is hit particularly hard because of poor housing conditions and overcrowding. Dirty streets, alleys, and houses, as well as a lack of proper sleeping quarters, make your work even more difficult.

On a very cold and rainy day, you meet a small boy who is standing barefoot and in his night dress in front of his house. You see he is delirious. You manage to get him back in the house where you find the father sitting beside the stove, two children in one bed, the mother and an infant in another bed. The father tells you he has been up night and day caring for his wife and children, all of whom have temperatures above 104 degrees, and when you take the father's temperature, it is 101.6 degrees. You learn later that, with the exception of the youngest child, all in the family recovered.

The houses in your area are extremely close together and many families live under one roof. Before you even get to see the first case on your list, people surround you to go with them to see others who are ill. You start out to see 15 patients, but instead see 50 to 65 extremely ill people before day's end. You recall that 14 calls in a busy season is average for your area, so you wonder how you got through this day. Your work is compounded by the fact that many patients had never been able to see a physician and it was impossible to get orders. Necessity demanded that you be many things to many people.

In visualizing this situation, it is difficult to believe that this could happen at any time. However, this situation occurred in the year 1918 and was described

by Mary Westphal (1919). At the time of the epidemic, Westphal was Assistant Superintendent of the Visiting Nurse Association of Chicago.

Background

In all the history of influenza, there is one event that stands out above the others—the great pandemic of the so-called Spanish influenza of 1918-1919. There were three waves of the disease in less than 12 months. The first wave, in the spring of 1918, was regarded as mild with the mortality rate not unusually high. The second wave of influenza spread from France to England and then on to Spain where it killed eight million people, and became known as Spanish flu, or the "Spanish Lady" (Fincher, 1989). The second wave came, in the fall of 1918, to the United States; it was described as the most spectacular outbreak of any disease for hundreds of years. A unique feature was that about half of the deaths worldwide were in the 20-40-year-old age group. During the last four months of 1918, 380,996 deaths were reported in this country (Sydenstricker & King, 1920). The third wave, early in 1919, was less severe but the age distribution of deaths was similar (Beveridge, 1977).

In this pandemic, as in others, people of all socioeconomic classes suffered to much the same extent (Sydenstricker, 1931). In less than a year, more than 22 million people died as a result of the influenza, at least twice as many as had died in the war (Fincher, 1989). In the United States the epidemic had taken a toll of more than 500,000 lives and had robbed many children of their parents, managing to leave everyone in a state of despair and apprehension (Geister, 1957).

Sophia Palmer (1918a), Editor of *The American Journal of Nursing*, made the following comments about the arrival of the epidemic in the November issue:

> As we close our pages, Spanish influenza is rampant in the United States and according to the statements given out by the public press, it has now reached practically every state in the Union. Never within the recollection of people living today has there been an epidemic so wide-spread or so disastrous in its results. While this epidemic has been alarmingly prevalent in our training camps, it has also reached people in their own homes not only in the cities and towns, but it has even spread into the rural districts (p. 83).

The resources for caring for the ill were insufficient for an epidemic of such proportions. Even though well-organized health departments and public health nursing agencies were growing in number, they still were located primarily in the large centers. Many other areas were left uncovered (Geister, 1957). Public health departments and bureaus had not been organized for a unified effort of this magnitude (Crosby, 1976). With few exceptions, there was no nursing service available for the great number of people living on farms or in desolate country districts. Nurses in the rural areas, out of necessity, had to be very resourceful. Very few rural nurses had adequate stocks of medical supplies; therefore, they had to substitute items. Some examples included using hot bricks, salt, or sandbags in place of hot water bottles; making bedrests out of chairs; soaping windows to give opaque light for surgical operations; and making a stretcher out of boards padded with quilts. Sometimes nurses in the rural areas had to make long trips for drinking water or melt snow in order to have water to bathe patients. Boiled water was often carried in fruit cans to obstetric and surgical cases (Kalisch & Kalisch, 1986).

At the same time the war was winding down, the epidemic was on a deadly course. Lillian Wald wrote to Jacob Schiff in June, 1918, that "the wolf is scratching at our door with the enormous demand for nurses . . ." And to Sister Waters she explained, "There is a demand for 40,000 nurses and a terrible shortage at the present time" (Siegel, 1983, p. 146).

During the first four days of October 1918, Miss Shatz, representing the Visiting Nurse Service of the Henry Street Settlement in New York, reported 467 diagnosed cases of influenza and pneumonia (Wald,

1918). A survey of one city block showed that 220 out of 1400 people were ill. The resources of the city under normal conditions would have been taxed, but at this particular time, because of the great shortage of doctors and nurses due to war needs, the task of meeting patient care needs was overwhelming (Doty, 1919).

Dr. Samuel Bradbury (1918) reported that the influenza symptoms experienced by a regiment of soldiers included high fever and chilliness, severe headache, and vertigo. The onset was sudden, often developing in a few hours and was usually accompanied by general muscular soreness, an irritating nonproductive cough, a sore throat, and marked drowsiness.

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Since there was no cure for the disease, many people resorted to good old American home remedies. These "cures" ranged from such things as tiny doses of strychnine and kerosene to red-pepper sandwiches. As a prevention, some people sprinkled sulfur in their shoes, wore vinegar packs on their stomachs, tied slices of cucumber to their ankles, or carried a potato in each pocket. One mother buried her small child from head to toe in sliced, raw onion (Fincher, 1989).

There was no way of measuring the probabilities of this epidemic. It struck all across the country, but not always with the same force. Cleveland, for instance, reported a total of 60,000 cases, with 2,000 deaths (Kingsley, 1918). The high mortality rate in some areas was indicated in the report of a temporary hospital in Joliet, IL. at its closing: Out of 197 patients, 42 had died (Baldwin, 1919). The seriousness of this epidemic can be realized when it is stated that during World War I, Cleveland lost less than 300 men, but in a few short weeks it lost nearly seven times that number of people due to influenza (Kingsley).

Hospitals already operating with inadequate nursing staffs because of the strain of war were taxed to the limit when the epidemic hit. Convalescing patients who could be sent home were quickly discharged, medical and surgical patients were put together, and only emergency operations were performed. Cots appeared wherever space would allow: corridors, treatment rooms, and resident offices. Nurses were reassigned, vacations of staff members canceled, and hours of duty extended (Deming, 1957). Twenty-bed units were stretched to accommodate 40 to 50 patients. The nursing staff remained the same even though the number of patients increased. Ambulances were busy day and night, bringing the sick from homes to the hospitals (Doty, 1919). Tents were erected on the lawns of hospitals, and buildings such as gymnasiums were pressed into service as hospitals.

The cold fact was that there were not enough nurses to care for all the men, women, and children who would need them so desperately during this epidemic. Common messages during the fall of 1918 were: "Can send all the doctors you want but not one nurse" (Crosby, 1976, p. 51).

Nursing Experiences During the Epidemic

Influenza at Cedar Branch camp. Anne L. Colon (1919), a nurse from Michigan, related how she took care of the influenza patients in a logging camp in the woods of northern Michigan. She described Cedar Branch as a typical logging camp composed of log cabins and tarpaper shacks. The people were fearless and nomadic, with little idea of homemaking and no concept of sanitation. They had large families and usually lived in a one-room cabin.

When Nurse Colon arrived at the camp, she found influenza patients everywhere. There was confusion, fear, and suffering. The sick and well were huddled together. In many of the cases, the family had only one bed, so extra beds were soon made of rough heavy cloth filled with straw. Each house had a fire burning; windows and doors were shut tight. The

people were afraid of fresh air, so it took considerable tact on the part of Nurse Colon to get them to allow fresh air into the room. Another difficulty that she encountered was that people would carelessly spit everywhere, including on the walls. She was able to stop them from this practice by placing a tin can on a chair beside each bed. These cans were burned each day and replaced with clean cans. These camps always had a great deal of canned food, so the people never went without food or cans.

Since Nurse Colon could not get to the camp every day, she left several responsible women in charge to see that there was some sense of orderliness. She had to make sure that these women were well instructed in elementary nursing measures because life and death hung in the balance. They had a total of 40 to 50 cases at Cedar Branch and lost only one baby. Colon (1919) stated that this camp had a better death record than other such camps.

Influenza in a North Dakota village. As was the case in many rural areas, a small village in North Dakota was caught totally unprepared for the influenza epidemic. The town cases were handled by practical nurses. County cases, however, could not be dealt with in the same way because of the great distances to be covered as well as the amount of home and farm work that had to be done in addition to the nursing. For instance, if a nurse wanted milk for her patients, she would first have to strain it. If the nurse wanted clean sheets, she would have to wash the two or three that were in the home. A nurse from North Dakota (R.G., 1918) wrote of a family of 11 in which five children had recovered from the influenza; however, the common water pail and drinking dipper became infected so the mother and remaining four children fell ill. When the nurse entered the home, she found four small children lying on a cot. Their temperatures ranged from 102 to 105 degrees with one child struggling for breath. The children were so toxic that they were not aware of what was happening. In the next room lay the delirious mother. To "do something" seemed like a helpless, hopeless task to this nurse.

Influenza in a Kentucky coal mining camp. There were 2,500 inhabitants in a coal mining camp in Kentucky. Until the epidemic, all of the residents had been in good health. Beulah Gribble (1919), a nurse, described the situation as she found it on her arrival to assist these people. She was told the estimated number of sick was 600. The first afternoon she visited 12 homes and found from one to six patients in each, all very ill. In many cases their temperatures were as high as 105 degrees. Conditions were distressing, not only due to illness but also to the fact that the physicians could not get to all of them for medical attention. Neighbors helped each other in giving food and general care wherever possible.

Some of the people lived in out-of-way places and it was impossible to see them as often as necessary; in families where every member was ill, other means had to be used. Therefore, the "Y" building was turned into a hospital and the sickest patients were moved there. Gribble (1919) could only estimate the exact number of patients, but she figured there were at least a thousand, with only 12 deaths.

Nurses to the Rescue

In response to a call by the Atlantic Division of the Red Cross, a meeting of New York nurses was held on October 10, 1918. The group was assigned the task of considering ways and means to mobilize nursing power, actual and potential, to combat the epidemic that was rapidly gaining headway. It was unanimously voted that the nurses should organize as an Emergency Council to handle the situation. Lillian D. Wald, director of Henry Street Settlement, was appointed chair (Wald, 1918).

Within a short period of time, Wald mounted a concentrated campaign from temporary headquarters in the Red Cross building on Fifth Avenue. She put schools, social and nursing agencies, teachers, labor and police under the council's jurisdiction. This move was made in an effort to create an effective administrative system. Calls were issued for volunteers to answer phones, wash dishes, and sweep floors in homes and hospitals. Nurses were called out of retire-

ment. In front of department stores college students handed out circulars that urged people to volunteer their time and advised on health precautions. Miss Wald called for door-to-door tenement inspection, and she arranged with the city to feed the sick with meat and eggs. Flu victims were supplied with fresh linens and given child care and emergency assistance. To assist in the rounds, Wald set up a motor service of automobiles and taxis. Henry Street Settlement nurses went into homes where entire families were stricken with the influenza and had no one to take care of them (Siegel, 1983).

To physicians and to the nurse-employing public, the Nurses' Emergency Council made this appeal:

> Unless it means life or death please release for service all nurses attending chronic cases. Physicians should not employ nurses as office or laboratory assistants during this emergency (Wald, 1918, p. 307).

A printer stood at his press all night so that thousands of these reprints would be available for distribution the following morning.

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Since the disease defied the prevailing medicine, a great deal depended on nursing care and "nurses carried the ball selflessly, tirelessly, and gallantly" (Geister, 1957, p. 583). Hospitals could not accommodate all of the patients, even the most serious cases; therefore, visiting nurses experienced an enormous demand. For instance, the Cleveland Visiting Nurse Association had a 400% increase in work during the influenza months (Kingsley, 1918). People desperately watched from their windows and doorways for the nurse. They would surround her on the street, requesting that she go in many different directions all at one time. Many times these nurses had whole families under their care.

Nurses not accustomed to walking districts, climbing stairs, or doing bedside nursing, left their regular jobs to work as visiting nurses (Geister, 1957). For example, the Nursing Department at Teachers College suspended classes so that both faculty and students could give of their services. When a New York hospital reported that its kitchen force was depleted due to the epidemic and its laundresses had walked out, a Teachers College nursing instructor and her graduate students took charge of the laundry and assisted in the kitchen (Wald, 1918).

As one might expect, the element of hysteria was present during this epidemic, and urgent requests were made for nurses even when their services were not really needed. Reports of nurses being locked in the house by the patient's friends or kidnapped on their rounds were not uncommon (Doty, 1919).

Nurses across the United States requested advice on the best way to handle the influenza epidemic. As a result of their request, the Committee on Administrative Measures for Relief published a summary of important measures for meeting epidemic conditions in *The American Journal of Nursing*. This report included sections on social and relief measures, food, laundry, provisions for fatalities, analysis of case situations, education, preliminary measures, and general rules (Foley, 1919).

Motor services across the country were organized for the nurses so that they could travel from one needy area to another as well as transport food and supplies. Davies (1919) referred to the motor services in this manner:

> There is a Ford machine provided for the nurse, which certainly helps, but in this epidemic it

was invaluable, as bundles of pneumonia jackets were piled in the back seat, and containers of soup were carried to those needing it. A nurse walking could not have done it (1918b, p.46).

It was common for the nurse to care for three patients in a bed and, where children were involved, four to six in a bed. Doors were left slightly open for the nurse as well as for unafraid neighbors who assisted in washing dishes and caring for the ill (Davies, 1919).

Nurses working in hospitals as well as in home services were very much aware of the contagious nature and high mortality of the disease that they were treating, yet the "story of their quiet heroism is an epic in itself" (Geister, 1957, p. 584). An untold number of nurses became ill and many died.

Nursing care was emphasized in every home, even if the care was just to take a temperature and give brief instructions to a mother, an aide, a husband, or an older child. There were not many diseases where nursing care meant more to the patient than in the influenza epidemic (Foley, 1918).

Long-Term Effects of the Epidemic

Nurses were well aware that this disease could not be treated with the medicine that was available during that time; therefore, they knew a great deal depended on their nursing care. Colon (1919) expressed the following in regard to providing nursing care during the epidemic and its lasting effects:

> And so we fought influenza under most trying conditions. We did not have a trained worker, and our patients and camps seemed hopelessly far apart, still we worked long, hard, and tirelessly and felt that we had not only checked the epidemic, but had succeeded in teaching lasting lessons in sanitation and prevention of disease (p. 607).

Deming (1957), a student nurse during the epidemic, felt that nursing came alive to her while she was caring for the influenza patients. Prior to the epidemic, she had believed that technical proficiency seemed so important. That idea changed with the epidemic. Suddenly patients came first. She reassured them, eased them, helped them, and comforted them. She saw this expanded role as the nursing that had been in her dreams.

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Lent (1918) believed that the epidemic created a kinship among people as stated in the following comments:

> Caste, color, creed were forgotten, and the desire to render aid seemed paramount. Any one who had anything to give gave it fully, freely, with not thought of praise nor desire for notoriety. Those who had any idea of nursing cheerfully gave their service; those who lacked professional training or ability to nurse gladly performed the numerous necessary tasks —washed dishes, drove cars, did clerical work, answered telephones, ran errands, etc.—no one failed to do his or her share—early and late and all day and all night they served (1918b, p. 296).

Sophia Palmer stated this opinion of the epidemic experience in her editorial in the December, 1918 issue of *The American Journal of Nursing:*

> The result of the experiences of this epidemic should be the organization of a strong visiting

> nurse association in every city that has none, with both doctors and nurses on the board . . . It is predicted that this epidemic will be followed by others, smallpox being already rampant in Russia and Siberia. We should prepare ourselves to meet them when they appear (1918b, p. 156).

In no previous epidemic had the mortality and morbidity of nurses been so great. The epidemic was said to reveal an alarming shortage of nurses in this country (Foley, 1918). There was a vocal demand for more trained nurses as well as a new pressure for coordinated planning (Melosh, 1982). The nurses in the field felt that the epidemic revealed more than just a nursing shortage. They became convinced that more home nursing be taught to every woman and that better housekeeping must not only be taught, but insisted upon. These nurses believed that epidemics of this type could be better controlled if a scheme was devised for better ventilation in the homes and if the homes were cleaner (Foley).

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Nurses were not the only group that learned from the epidemic. The general public realized that cooperation could be easily achieved when all people involved are united in a common cause. Nurses learned the kind of mobilization that is needed in an emergency and how to go about getting it. Thousands of families had learned new lessons from nurses about personal hygiene and home sanitation under the most difficult circumstances. A very important gain was in the broad and general recognition of the visiting nurse service, and all nursing as a valuable and an essential community service (Geister, 1957).

Summary

Just as the horrors of World War I were ebbing, millions of people were stricken by an influenza epidemic that displaced the war as the tragic focus of everyday life. Since the disease had no known cure, a great deal depended on the practicing nurse whether she worked in the hospital or home setting. Thus, she became the heroine in a fight against a killer.

Even though many sick people did not receive nursing care and much suffering was not relieved, some definite things were accomplished. It is true that one generally learns by doing and there was no doubt in the minds of many nurses that, if the need should arise again, they would be better prepared to handle a similar emergency because of the experiences they had gained. The epidemic taxed nurse manpower to the ultimate. However, nurses were able to demonstrate that they could mobilize their power to maximize their efforts to combat the epidemic. They also brought attention to the nursing profession, which resulted in a public outcry for more nurses.

Today if there was an influenza epidemic similar to the one that occurred in 1918-1919, would we as nurses be prepared to handle it? It is a question that one needs to think about. Perhaps we could gain some insight and lessons from the nurses who worked so tirelessly during the Spanish influenza epidemic.

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