

Risk Perceptions of Farmers on Skin Cancer and the Role of Community
Pharmacies in Preventative Strategies

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DPH-1, class of 2005

There are nearly two million farmers in America, which is a sizable population in itself, but agriculture drives the economies of a vast number of rural areas. Health care in these rural areas has demanded a different approach to that in urban areas (Long and Weinert, 1989). The beliefs of farmers epitomize the values in most rural communities, and many of the models and theories on farmers can be applied to rural communities also. Farmers have been shown to question their health and seek care only when a serious condition that affects their activities arises and they seem to take little stock in the use of preventative care.

The promotion of preventative behavior is particularly difficult, and is one of the key factors in the prevention of skin cancer. Farmers are at an increased risk for developing skin cancers, which seems quite obvious considering the amount of time that is required to be spent outside. This increased risk can be seen in the higher incidence of fatalities resulting from skin cancer in farmers (Marlenga, 1995). It is suggested by the American Cancer Society that individuals avoid the sun between the hours of 10am and 3pm, but this is hardly a viable option for farmers, who make their living working outside. The use of sunscreen and protective clothing are the only alternatives for farmers to protect themselves. Among farmers, as will be shown, there is confusion over the potential risks of skin cancer and the benefits of preventative action.

This paper will focus on the values and beliefs of United States farmers which affect the means of providing health care to them. Farmers' beliefs on work, health, and dependence will be shown to be very important in any discussion on their health care. From there, the issue of perceived risk of skin cancer will be examined. These previous two issues will be addressed in the first section of this paper. In the final section, the

farming culture will be compared with the majority culture in the United States (particularly the culture in urban regions). Methods to include community pharmacies in the preventative process will be covered. The Behavior Adaptation Model proposed by Parrott, Monahan, Ainsworth, and Steiner will be applied to the pharmacist's role in serving and assisting farmers in the prevention of skin cancer. Special emphasis will be placed on education of risks and methods of protection and its importance in the prevention of skin cancer.

Beliefs, Values, and Perceptions:

Farmers have a number of departures in beliefs and values from that in the overall US. However, there are three that are most important when talking about health care. These are beliefs about work, health, and dependence. All of these work at the same time to shape farmers' beliefs on when to seek care and the type of care to practice.

Farmers place great importance on being independent and not relying on others outside of their family and close friends for support. This can be expanded to state that farmers are less willing to accept help from unfamiliar sources, and they are very loyal to familiar sources. This is quantified by decreased use of welfare programs and decreased use of human service agencies (Long and Weinert, 1989). Their dependence on their family indicates farmers' strong feelings about and the importance of family in their lives (Parrott, Monahan, Ainsworth, and Steiner; 1998).

Farmers also consider their work to be their number one priority. Sayings like "make hay while the sun shines" not only indicate the dependence of farming on the weather, but also that any moment available to do work should be used for doing work. This belief causes significant problems for communication with farmers by health care

professionals. Particularly with skin cancer, it would be best to prompt farmers to take preventative action during the summer months, when the risk is highest. However, this is the same time when farmers are most dependent on the weather. This creates problems for trying to schedule a 'health fair' or some other sort of similar program.

Farmers' beliefs on their health are closely connected with their values placed on work. Farmers tend to consider 'good health' as a condition when their health doesn't adversely affect their ability to work. Farmers indicate that pain is tolerated as long as they are able to be productive, even if the pain is prolonged. It has also been shown that farmers experience less pain than do urban dwellers. (Long and Weinert, 1989) This attitude is the most applicable reason that farmers don't use preventative techniques to protect themselves against skin cancer.

The perceptions of risk are more challenging to pin down. A study designed under the tenets of the Health Belief Model shows that farmers consider skin cancer to be a serious threat, and the use of sun screen and protective clothing to be beneficial. However, Farmers in this study did not tend to use these preventative strategies. Perceived barriers dictated farmers' response, citing summer heat and inconvenience as the main reasons. (Marlenga, 1995)

Another study showed the relative concern of farmers towards specific issues. The study showed that out of eight occupational threats, threats to their skin were of the least concern (Thu, Donham, Yoder, and Ogilvie; 1990). However, farmers did consider skin cancer to be matter of concern, just not the foremost

Parrott, Monahan, Ainsworth, and Steiner (1998) attribute the low usage of preventative techniques to a lack of actual procedural knowledge, which is a lack of

knowledge about performing a preventative act. They also specifically stressed the importance of Social Resources, which are role models or others who provide information or assistance.

These studies show that skin cancer is considered a threat, but that other matters occupy farmers' attention. They also indicate that farmers have little knowledge on specific facts about skin cancer. A lack of specific knowledge about the use or benefits of preventative techniques is shown in them. They also stress the importance of personal involvement by those providing know-how and support to educate the farmer about prevention of skin cancer.

The personal values and beliefs a farmer holds feed into the perceived risks of skin cancer and the use of preventative techniques to protect against this condition. If farmers accept help and guidance only from well known, trusted, and familiar sources, they may not get enough correct information to make informed decisions. Farmers' feelings about work limit the time that they can devote to their health care, furthermore, their feelings about health lead to a disregard of the value of prevention, leaving them to deal with threats only after the damage is done. The three of these combine to produce a situation where farmers don't really know about a threat, and they don't necessarily care either.

The Role of the **Community** Pharmacy:

Where does a pharmacist fit into this? Typically, in urban and suburban areas, community pharmacies provide medication to the ill, and access to well trained and educated health care professionals capable of dispensing valuable medical advice. They are trusted by their patrons to perform these roles as described. The same can be said for

a rural community pharmacy, but the source of trust is slightly different. The urban variety are trusted because of their knowledge and training, and to some extent personal relationships with their clients. The rural variety, on the other hand, is trusted because of its familiarity, and personal experiences of the clients with the pharmacy workers. The knowledge and training of the pharmacist are secondary to this.

Farmers' beliefs also depart from mainstream U.S. beliefs with regards to their definition of health. The general U.S. population seems to care more about their health in the sense that they don't define health as the ability to go to work. They seem to be more apt to take preventative action and are more likely to contact health professionals for care (Long and Weinert, 1989).

There is a marked similarity between the general U.S. population and farmers, and that is the importance of work. Both cultures place great importance on being productive and spending a lot of time 'at work.' This can be quantified if you think about the economic output of the U.S. and consider the tiny fraction that is a result of agriculture.

The Behavior Adaptation Model serves as a refined version of Bandura's Self-Efficacy Model, from which it was derived. It tries to quantify the relation between adaptive behaviors (the use of preventative techniques) and five factors that influence them. The most important factors of this model that relate to skin cancer prevention in farmers boil down to individual commitment, social support and expectations, and specific knowledge. Individual commitment basically refers to the confidence a person has that the individual can adapt their behaviors. This was shown to be a factor, but not as important as the other two points.

Social support and expectations deal with the relationships between an information and support provider, and the recipient of this assistance. It has been shown that farmers tend to seek and accept information from sources they are familiar and comfortable with, whether they are knowledgeable or not. With farmers, the same individual that information is accepted from is trusted, and the farmer tends to care about his or her opinions. If the provider, be it a spouse, close friend, or trusted health care provider, expects the farmer to practice prevention, the farmer is more likely to do so. This shows the significance of developing close and strong ties between a health care provider and the farmers.

Parrott, Monahan, Ainsworth, and Steiner (1998) emphasize the importance of having specific information on preventative techniques, such as when to apply sunscreen and how much to use. Without specific knowledge of how to perform a preventative task, the farmer will be less likely to do so. This reveals the importance of education, not just for the previous point, but also for good health risk information.

Pharmacists are in a strategic and unique position to allow for frequent and meaningful contact with farmers. No appointment is necessary, which may have to get cancelled as the result of a break in bad weather anyway, and pharmacists can act as a resource for health information. Pharmacists have to do more than be in the right place at the right time, however.

It is important for the rural pharmacist to forge strong relationships with his farming clientele, so that the pharmacist becomes one of the 'trusted few' that is listened to by an individual farmer. It is also important that the pharmacist be well known and active in the community, so that a farmer may feel more capable of approaching the

pharmacist. This is not to say that the pharmacist should refrain from actively developing relationships, he or she needs to be a key figure in the community and proactive in the building of relationships. This will allow the pharmacist to educate farmers on matters of skin cancer prevention, as well as anything else which may be of concern to the farmer.

Once the farmer will accept the advice and input from the pharmacist, the task at hand for the pharmacist is educating the farmer about health threats and the ways to cope with these threats. In this case, it would be educating the farmer about the risks involved in working long hours under the sun, and the methods he or she can use to diminish the risk, such as using sunscreen properly, wearing a tightly-knit long-sleeve shirt, and wearing the correct type of hat. Long and Weinert (1989) bring up the issue of role diffusion, where an individual may have to perform activities that may not conventionally be thought of as his or her responsibility in a given career. Rural pharmacists must be prepared to assume a greater role in education of health matters since this area is lacking in most rural communities.

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