

Healthy Homes Tools

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Abstract: *Extension is focusing on healthy homes programming. Extension educators are not qualified to diagnose consumers' medical problems as they relate to housing. We cannot give medical advice. Instead, we can help educate consumers about home conditions that may affect their well-being. Extension educators need appropriate healthy homes tools to facilitate this process. Two important tools include the Help Yourself to a Healthy Home booklet and the Quick environmental exposure and sensitivity inventory (QEESI®).*

Introduction

Extension and Healthy Housing

Extension is focusing on healthy homes programming. Many states participate in nationwide initiatives, including the Healthy Homes Partnership (Maring, Singer, & Shenassa, 2011). The Healthy Homes Partnership is a joint program between the US Department of Housing/US Department of Agriculture and is administered by Auburn University (USDA Housing and Community Living, 2011). Common healthy homes topics include indoor air quality, asthma and allergies, mold and moisture, carbon monoxide, lead, water quality, hazardous household products, pesticides, and home safety (*Help Yourself to a Healthy Home*, 2011).

A subset of healthy housing is multiple chemical sensitivity (MCS). The US Environmental Protection Agency defines MCS as, "a condition in which a person reports sensitivity or intolerance to a number of chemicals and other irritants at very low concentrations" (US Environmental Protection Agency, 2010).

Importantly, as Extension educators, we are not qualified to diagnose consumers' medical problems. We cannot give medical advice. Instead, we can help educate consumers about home conditions that may affect their well-being.

Why We Care About MCS

Multiple chemical sensitivity is a subset of the broader healthy homes context. In Extension, we often help consumers quickly find solutions to their problems. Other times, consumers are faced with problems that do not have a ready and apparent solution. MCS may be one such problem. Although the EPA provides a broad definition of MCS, it is hard to define as manifestation is unique to the individual (Miller, 1996).

Useful Tools

Help Yourself to a Healthy Home

As stated, as Extension professionals, we are not qualified to diagnose illness. We can help our constituents assess their home and near environment as it relates to their overall well-being. There are tools available to help Extension educators and consumers increase awareness of and address healthy homes issues. Most common is the *Help Yourself to a Healthy Home* booklet produced by the Healthy Homes Partnership (2011).

QEESI ©

Consumers with MCS may be well aware that certain environmental factors affect them. What they might not consider is the multiplicative effect of common household goods on their unique well-being. As part of healthy homes programming, educators can help consumers as they holistically consider chemicals and allergens exposure levels, sensitivity levels, and, if sensitive, the extent of sensitivity. This information is important because not all individuals are sensitive to chemicals and allergens, not all sensitive individuals will have the same reaction, and not all reactions are the same.

One tool to help with this process is the Quick Environmental Exposure and Sensitivity Inventory (QEESI©) (Miller, 1998). The QEESI© survey asks a variety of questions with the intent to isolate chemical intolerances. The purpose is not to question multiple chemical sensitivity validity or diagnose individuals as having MCS. Instead, the QEESI© essentially helps consumers consider on the individual level environmental conditions and personal reactions to chemicals and allergens. Consumers may discuss their QEESI© results with their personal physicians.

The QEESI© is a brief, five-page booklet featuring 50 questions. A number of the questions relate to home environments and personal reactions to their home environments. The questions are organized into five sections: (1) chemical exposure; (2) other exposures; (3) symptoms; (4) masking index; and (5) impact of sensitivities.

- *Chemical exposures*: 10 questions related to chemical exposures, asking, for example, about exposure to common household goods including insecticides, cleaning products, and home furnishings. Other questions ask about fabrics and metals exposure.
- *Other exposures*: 10 questions related to exposures to potential irritants, including foods, fabrics, and biologicals such as mold.
- *Symptoms*: 10 questions related to physical effects, such as eye irritation and headaches.
- *Masking index*: 10 questions related to personal habits that may mask or aggravate conditions, such as smoking.
- *Impact of sensitivities*: 10 questions related to the degree to which sensitivities have affected, for example, ability to clean the home or go to work or school.

References to the QEESI© appear in a number of recent, peer-reviewed articles. Just three articles in the last two years include works by Hojo, Sakabe, Ishikawa, Miyata, and Kumano (2009), Nordin, Andersson, and Nordin (2010), and Huang et al. (2011). A search engine such as Google Scholar can help identify these and other articles related to the QEESI© questionnaire and multiple chemical sensitivity.

Putting the Tools to Work

Extension educators may use *Help Yourself to a Healthy Home* and QEESI© in tandem as they try to help consumers identify elusive problems. This approach may help individuals reduce exposure to chemicals and allergens that may be a factor in MCS. Resident and Extension faculty at Oklahoma State University are in the process of analyzing data from at least 500 QEESI© surveys. Researchers gained institutional review board (IRB) approval before beginning

data collection. The ultimate outcome is to help consumers reduce exposure to contaminants that may contribute to multiple chemical sensitivity. Researchers must contact QEESI©author Dr. Claudia Miller for permission to use the QEESI©in their studies.

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